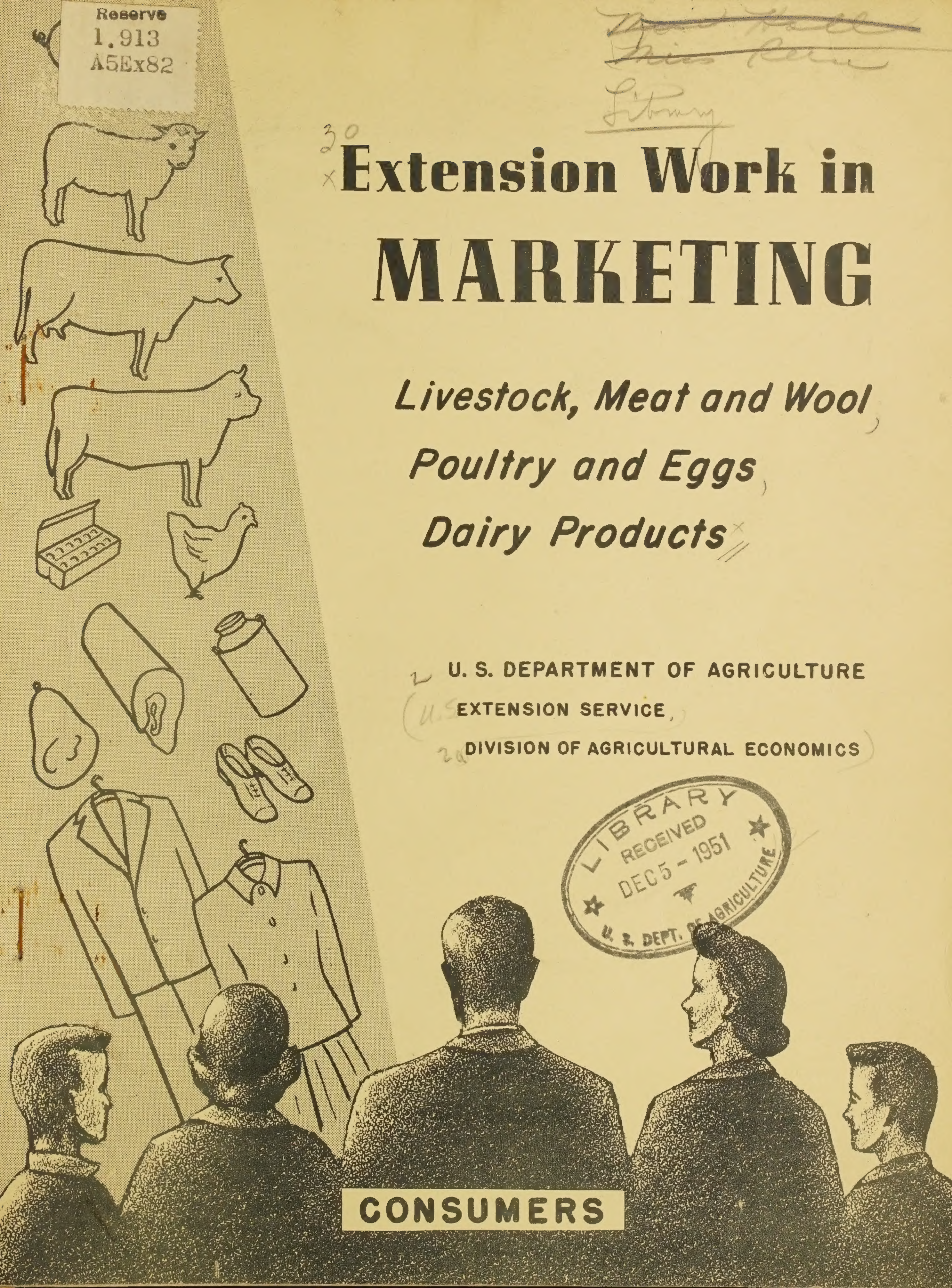
Extension Work in MARKETING

Livestock, Meat and Wool
Poultry and Eggs
Dairy Products

U. S. DEPARTMENT OF AGRICULTURE
EXTENSION SERVICE
DIVISION OF AGRICULTURAL ECONOMICS



This report is intended primarily for extension workers engaged in some phase of marketing, particularly workers who have recently assumed responsibilities in marketing. Selected phases of State marketing programs are described so that readers may obtain ideas and suggestions from these examples. The report is not intended as an appraisal of the work done in various States. Instead, examples are given to provide the reader with different approaches to the problems in marketing. It is recognized that many of the activities discussed in this report were carried on in States other than those mentioned. However, to include all States engaging in such activities would result in unnecessary duplication.

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EDUCATIONAL WORK IN MARKETING LIVESTOCK, MEAT, WOOL, DAIRY PRODUCTS, EGGS, AND POULTRY 1/

I. INTRODUCTION

The Livestock, Dairy, and Poultry Marketing Section of the Division of Agricultural Economics has the responsibility for assisting the State extension services in the development and improvement of educational work in (1) livestock, meat, and wool marketing; (2) dairy marketing; (3) egg and poultry marketing; and (4) economic and outlook information in the livestock, dairy, and poultry industry. Livestock, dairy, and poultry marketing specialists in the States have the responsibility of conducting educational programs with all segments of the industry related to livestock, dairy, and poultry in line with administrative policies of each institution.

The following statement prepared by a committee of State directors of extension and deans of agriculture representing 13 States at Chicago, Ill., October 9-10, 1950, sets forth the objectives of an educational program in marketing.

"Extension's objective in the field of marketing is to raise the level of efficiency with which farm products are distributed from farm to consumer. This objective is threefold:

"1. To aid farmers in understanding the demands of the market and in adapting their production and marketing procedures to these demands.

"2. To aid processors and distributors in becoming better informed concerning market conditions, and more efficient in performing their services to the end that farm products may move more smoothly through the distribution channels with less waste, less decline in quality and at lower costs, thus benefiting producers, handlers, and consumers.

"3. To aid consumers in becoming more discriminating and more skillful in buying and using farm products.

"Educational work with the farmer on his farm and with farmers' organizations cannot go the whole way in solving agriculture's marketing problems. Effective distribution and merchandising of farm products requires skill and efficiency throughout the channels of distribution. Proper utilization of these goods requires discriminating and informed consumers. If large-scale improvement in agricultural marketing and distribution is to be brought about, Extension's educational work must be greatly expanded and intensified, not only with producers but

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also with those who handle the farmer's produce or use it, such as processors, wholesalers, and consumers. Much of the emphasis needs to be placed upon educational programs with these nonfarm groups."

Educational work in livestock, dairy, and poultry marketing is conducted under two separate authorizations, namely, regular work financed from Federal and State funds appropriated for work in accordance with the various Congressional acts passed before 1946, and projects financed by funds provided by title II of the Research and Marketing Act of 1946, and made available to expand educational work in marketing. These projects are known as RMA projects and must, according to the legislation, expand current marketing educational work or initiate new educational work in marketing. In compliance with these special requirements for projects using RMA funds, a special midyear progress report on each RMA project is required, in addition to the annual report, for use in reviewing the project before allocating funds each year. In connection with RMA projects, the Division of Agricultural Economics has the additional responsibility of representing the States in their requests for RMA funds for State projects. This necessitates giving careful attention to each project and working in more detail with the States in project development and revisions to insure that each project is conducted in accordance with the act.

During most of the year from July 1950 to June 1951 there have been three men in the Livestock Dairy and Poultry Marketing Section: Homer Porteus is concerned principally with egg and poultry marketing and was on the job from July 1950 to February 1951, at which time he took leave for graduate study at Harvard University. Max K. Hinds is concerned principally with dairy marketing. He joined the section in November 1950. Luke M. Schruben, in charge of the section, is serving also as project leader for meat animals and wool marketing and was on the job during the entire year.

The services of the Washington staff are available to any State insofar as time and travel funds permit. The staff welcomes opportunities to assist States in developing marketing programs, reviewing and revising current projects, and participating in carrying out State programs. This staff endeavors to keep abreast of the research work of different agencies of the many departments in Washington, as well as specific State programs regarding new information and methods of procedure, and to keep State personnel apprised of new developments and supplied with information as it becomes available.

A number of extension specialists in the States work on one or many phases of livestock, dairy, or poultry marketing. Marketing specialists responsible for designated commodites generally devote full time to marketing problems of the commodity. Most agricultural economists responsible for general economics work devote some time to marketing and outlook problems of one or more of the commodities. Production specialists, although devoting most of their time to problems of production, are giving increased attention to problems of marketing, particularly where there is no marketing specialist on the staff who is responsible for the commodity.

The following tabulation shows approximately the number of extension workers engaged in marketing educational work on the commodities included in this report on a full-or part-time basis:

State extension specialists devoting full and part time to marketing

Type of worker	Livestock	Dairy	Poultry and eggs
Full time	39	14	26
Part time	31	27	9
Total	70	41	35

This report endeavors to describe significant activities of both the Federal and State marketing specialists with special attention to: (1) commodity situations as they exist today; (2) examples of program and work accomplished by both State and Federal personnel; and (3) a statement of trends and opportunities for expanding marketing education work. Although this report covers marketing work in the three commodity fields with no distinction between regular and RMA marketing work, the work done in the States with RMA funds must be new and additional and should be included in the annual report in such a way that it can be distinguished from regular work.

II. SUMMARY OF EXTENSION WORK IN LIVESTOCK AND WOOL MARKETING

A. SITUATION

Meat Supplies and Population

The quantity of meat produced has kept pace with population growth during recent years largely because of the expansion in production of hog and poultry meats. Supplies of these meats can be expanded rapidly in relation to other types of meats. The major increase in cattle numbers has occurred in the Southeastern and South Central States where there has been a deficit in red meat in relation to population. Much of this added production will be consumed in the area, owing to increased purchasing power resulting from rapid industrial expansion.

Looking Ahead at Cattle Prices

Historically, the price of red meats has been closely associated with individual income, and the total number of dollars spent for meat has represented a rather uniform share of total national income. National income and purchasing power accentuated by the defense mobilization effort are likely to remain high as long as defense mobilization is expanding, therefore the price of most meats should remain relatively high during the next 2 years. Livestock numbers will probably continue to increase as long as feed supplies are available.

Price ceilings on cattle will tend to distribute marketings uniformly enough to cause these ceilings also to become floors for cattle prices. Price ceilings should not, however, be looked upon as floors, as there are likely to be periods of time when the market price of several grades

of live cattle will be below ceilings. Because these situations are likely to be of short duration they should not be too important in determining production policies unless a general decline takes place in national income.

Internal Adjustments in the Beef Cattle Industry

Major adjustments within the beef cattle industry can be expected as long as the defense mobilization act, including price control, is in effect. These adjustments will vary between areas and between types of operation and will not be the same as would take place under a free price economy. They will be made on an individual basis with each person attempting to utilize his resources to produce the greatest net return.

Extension livestock marketing and production specialists, and other extension workers, including county agricultural agents, have the responsibility of providing information and assistance to the livestock industry, particularly cattle producers at present, that will help them make adjustments to meet the changing situation. Cattle production is a long-time operation and resources devoted to it will be committed for several years. Mistakes made this year may not be apparent until 2, 3, or 4 years later.

With price controls on cattle the feed lot operator should be able to calculate his margins closer than would be possible in a free market; therefore, profits from feed-lot operations should fluctuate less than normally. Large profits will be unlikely. As a result of price controls, there is also less likelihood of severe losses.

The cowherd operator has always had the option of selling calves, yearlings, 2-year-old, or older cattle. Under price ceilings he should and no doubt will calculate his opportunities for greatest profit and adjust his operations accordingly. Unless the price of replacement cattle remains high, many cowherd operators who now sell calves or yearlings may decide that there is more to be made by keeping calves over than selling them. This will tend to force the feeder to bid up on calves or not get them.

If feed supplies remain high-priced there may be a tendency for feedlot operators to bid up the price of feeder cattle to a point where the inefficient will not break even in their operations. There will also be a tendency for farmers who can do so to switch from a feeding operation to a cow-calf program in order to get away from the high cost of feeder cattle. If this change in operation takes place it will constitute a substantial change in the use of resources and is in the area where extension workers have a real opportunity to provide guidance and leadership in developing understandable economic principles that producers can use to insure wise decisions. The net result of adjustments within the industry is likely to result in a temporary increase in the supply of beef with a reduction later, or if not an actual reduction in total supply of beef, a halting of the upward trend in numbers that is now under way.

The cowherd operator who decides to sell cows this fall and winter

and keep calves will be marketing beef that goes directly to slaughter, while had he sold calves they would still be 12 to 15 months from slaughter. When these calves do come to market they are likely to weigh from 150 to 300 pounds less than they would have weighed had they been carried by a feed-lot operator. The amount of beef produced by the cows coming to market this fall and winter is more than likely to be greater than will be withheld from the market by the farmer who changes from a feeding operation to a cow-calf program. Any adjustment that substantially changes the pattern of production which operates on comparative advantages peculiar to the area will in the long run reduce the total supply of beef.

B. ACTIVITIES, ACCOMPLISHMENTS, AND EXAMPLES OF MARKETING WORK

Livestock Loss Prevention

Livestock losses due to careless handling both on the farm and during the marketing processes are substantial.

The Extension Service has for the most part conducted educational work designed to reduce losses occurring on the farm. During this period of high meat prices, the possibilities of further reducing these losses is important. The Livestock Conservation, Inc., 405 Exchange Building, Union Stock Yards, Chicago 9, Ill., maintains a full-time executive secretary, who stands ready to cooperate in making loss prevention information available to State extension workers as an aid in the development of their educational programs designed to further reduce livestock losses. This organization has recently made a colored slide set available on livestock losses and their prevention. Several States have recently expanded programs in this field through the preparation of slide films and charts, and the development of 4-H demonstration teams. Minnesota has prepared a set of slides entitled "Be Humane -- It's Your Gain."

Iowa has initiated a program on livestock loss prevention in connection with 4-H Club work. Articles for national and local papers, suggesting ways of reducing livestock losses, are prepared periodically in several States.

Problems of Freezer Locker Plants

Freezing locker plants have gone through a substantial development during the past 15 years in their effort to better serve their customers. Although most of them were organized originally as a locker rental service plant, many are now expanding into slaughtering and processing of meats for locker patrons and entering other outside lines. This has been done largely to provide full-time employment for their employees and to procure enough income to stay in business. The use of these plant facilities will no doubt become more important in the marketing of livestock during the years ahead.

Minnesota has conducted a locker plant study and is doing educational work with local plant operators in the State. Interest is being expressed on the part of several States regarding the possibilities

of doing educational work in this field.

Livestock Sales Contract Forms

Many small producers of cattle and sheep contract their calf-lamb or wool crops months ahead of the actual delivery dates. Contract forms calling attention to the important considerations of a transaction of this kind have not been available to most producers until recently. Such a contract was prepared at Utah State College in cooperation with the Federal Office of Extension and several interested agencies in the United States Department of Agriculture.

Market and Outlook Information Extensive

Livestock marketing and outlook information has been prepared and used for many years in most States. This work has been most worth while in helping producers better appraise the value of their products and current trends in markets. Minnesota, in addition to preparing market and outlook information for the livestock industry, has developed a number of picture slide series. Some of the sets are: (1) The Little Woman Is Changing the Hog Market, (2) Feeder Cattle Grades, (3) Marketing Wool Effectively, (4) Slaughter Lamb Grades, (5) Choosing Veal for Better Meats, (6) Harvesting Wool, (7) Agricultural Outlook, and (8) Be Humane -- It's Your Gain.

Marketing by Grade and Weight

It has been apparent for some time that producers are not generally able to translate market reports which are quoted by grade to the animals they have for sale. As a result, producers have been handicapped in their market operations.

Effort to correct this situation is under way in many States, through programs designed to teach farmers how to recognize live grades. This is being done by conducting market tours and feeder cattle auction demonstrations where the calves are sold on the basis of grade and weight.

Missouri and Virginia, for example, have held these demonstrations over a period of years and have found that they have proved satisfactory to both the cattle producer and the purchaser. The demonstrations are organized well in advance of the time of the sale. Local committees function in getting feeder cattle consigned to the sale. In some demonstrations the producer pays a small fee at the time of consignment to insure successful financial operation of the auction demonstration. On the date of the sale, the cattle are delivered to the auction, weighed, graded, and assigned to lots according to weight and grade. The grading is done either by the State department of markets or by extension specialists. The cattle are then sold on a basis of grade and weight to the highest bidder. This method of operation commingles ownership, each producer being paid on the number of pounds he furnished to the different weight and grade classes.

A byproduct of these demonstrations is proving to be almost as valuable, if not more valuable, than the purpose for which the demonstrations

were originally designed. Most of the demonstrations are designed to provide a basis for training producers to recognize live grades and a market for their calves on a grade and weight basis rather than by the head. This they have done, and in doing so, have demonstrated clearly the difference in value based on quality. Producers seeing this difference have immediately asked the question, "What can I do to improve the quality of my calves?" The following points made by one Missouri auction committee emphasizes the purpose of its work:" (1) Education in the field of beef herd improvement in that it provides opportunity for producers to see their calves alongside the calves of their neighbors, so both quality and weight may be compared on an equal basis; (2) To provide producers with an opportunity to sell their feeder calves to advantage and to have control of the organization doing the marketing; (3) To provide buyers of feeder cattle the opportunity to purchase the size, quality, and kind of cattle they desire direct from the farm, sorted and in one place, thereby saving the expense of hunting for the calves in the country."

Missouri's reports state further that in areas where their demonstrations have been conducted for some time, the quality of calves sold has improved steadily. The net return to the industry, as a result of quality improvement, can easily exceed the increase in returns as a result of selling on a weight and grade basis.

The Virginia report relates the following results of these marketing demonstrations: "Virginia beef calf sales demonstrations have increased the interest of local auction market operators in selling calves on a weight and grade basis. As a result of these demonstrations many of the auction markets of the State are now grading much of the livestock sold in the weekly sales.

"In 21 sales during 1950, 12,701 calves were sold in Virginia for 5 cents per pound more than the average for all calves sold in the State. One farmer in Virginia has sold through the auction from the start, which was 1947. He asked why his calves brought less than his neighbors'. A check showed that he should get a better bull. He followed this recommendation and in 1950 his calves graded a full grade higher than in 1949 and brought $29 more per head. After subtracting the difference in the average sales price of 1949 and 1950 he received $20 net more per head, due to quality and weight improvement for his 30 calves." Similar examples could be cited many times showing that to make progress the one big job is to develop interest on the part of the producer in doing better. A successful marketing program will generally result in a substantial improvement in production practices.

Feed Lot and Market Tours

Some States are training farmers in the application of market reports to their situation by conducting marketing tours to terminal markets. Indiana, Colorado, and Utah are among the States carrying on this type of educational program.

Indiana, for example, uses special tours and demonstrations to help producers relate market information to their own situation. Indiana reports their activities as follows:

"Usually in cooperation with one of the animal husbandry specialists, but sometimes alone, the writer has assisted in conducting six county cattle feed-lot tours with a total attendance of 469 during 1950. As a rule from four to eight feed lots are visited on a tour where different grades of cattle and different feeding and marketing programs are used for comparison. At the various stops the economics of cattle-feeding programs are presented.

"Beef Cattle Grade Demonstration. This is a new type educational program tried in the State for the first time this year. The program is somewhat difficult to present, chiefly because of the amount of preliminary work involved for local committees. However, the first attempts, two in the fall of 1950, were quite successfully staged as measured subjectively and also by the numerous comments received from the public. Attendance at the two programs totaled almost 800 with registrations from 30 counties recorded.

"Working closely with local committees and with the Producer Livestock Commission Agency on the Cincinnati market, nine or ten distinct types or grades of feeder and stocker cattle were assembled at the county fairgrounds. Matching grades of finished cattle were also assembled, so that for the demonstration it was possible to show the grade characteristics of cattle at the start of a feeding program and what the same cattle would be like when properly finished for the grade. With the assistance of the extension beef cattle production specialist a rather complete picture of grade characteristics, feeding methods, types and quantities of feeds needed for finishing each grade, and price and market economics were presented, and suitable time was allowed for questions and answers.

"Among the factors which have stimulated interest in beef cattle programs in recent years can be mentioned: (1) Increased emphasis on grass for soil conservation; (2) improved techniques in grass culture and varieties; (3) the relatively strong price position that beef cattle programs have enjoyed in recent years as compared with dairy projects; and (4) the increasing scarcity of farm labor and the rising standards set up for the best milk markets. These factors have contributed to the increased interest on the part of the farmers relatively inexperienced with beef cattle, who need help in selecting a proper beef program for their individual situations. Further work of this type is contemplated for the future.

"Special Beef Cattle Market Tours. About the same results have been obtained as those described in the preceding section by conducting special beef cattle feeders' tours to the Chicago stockyards where an adequate variety of both feeder and finished slaughter cattle are available during the fall months. Three of the market tours reported above were of this nature. Such tours have an added advantage, in that dressed carcasses can also be used to complete the picture of grades and values. One of the disadvantages of the tours, however, is the limited number that can be handled at one time at the market. Attendance on tours must of necessity be limited to 50 or 60 at one time."

Colorado marketing tours operate as follows: "Five tours of the Denver stockyards were held, with 11 counties participating. The men arrived at the stockyards at 9:30 a.m. where they were welcomed

by stockyards officials. Short talks were given by the livestock marketing specialist from the college and by several of the stockyard officials. They were then taken out into the yards where a packer buyer showed them two lots offeed cattle. They were told what the two lots were bought for and why there was a difference in price. It was also explained how cattle were bought at a central market, what procedure was followed in arriving at the value of cattle, and what the buyer wanted in slaughter cattle. Then they inspected a few loads of feeder cattle, and an order buyer explained in considerable detail the kind of feeder cattle feeders wanted and why they wanted cattle of that kind and were willing to pay more for them.

"One tour was held on April 4, attended by 70 persons. The tour commenced in the morning at the exchange building with a talk by an exchange official and the marketing speicalist. Following these introductory remarks a tour through the stockyard was conducted. Cattle purchased for slaughter by a large packer the previous day was inspected as a part of the tour. The stockyards company furnished lunch. After lunch a tour of a large packing plant was conducted at which time the cattle previously seen on foot were followed through the slaughter and processing operation."

Lamb Pools Popular

Fat-lamb pools as they have been conducted in Ohio, Kansas, Oklahoma, Iowa, Indiana, Tennessee, and many other fat-lamb producing States, have shown similar results in the improvement of the quality of fat lambs produced in those States. An outline summary of 36 years' work is contained in a report made by Mr. Carl Elling, of Kansas State College. The points in his report are:

"1. The sheep project started as a separate project in 1917.

"2. In 1918, county wool pools were organized and buyers were invited to make bids on the wool in the pool on a specified date.

"3. This method failed absolutely and totally in the 'little depression' of 1920-21. The buyers pooled their efforts and failed to arrive.

"4. The total wool in the pools, 990,880 pounds, was shipped to the National Wool Warehouse and Storage Co., a sort of cooperative set-up, to be sold.

"5. This firm handled cooperative county shipments fairly successfully in spite of considerable obstacles. The trouble seemed to be due to the loose organization and very extensive territory from which the wool came. In other words, this organization was used as a dumping ground during low wool prices and pretty well deserted during good prices. It was also extensively used as a lever to pry up local prices by getting steady volume of wool through the period of years. This organization, however, must be credited with keeping the cooperative selling of wool alive until 1930 when the Midwest Wool

Marketing Cooperative was organized, involving six States, including Kansas, Missouri, Nebraska, Oklahoma, Arkansas, and the Panhandle of Texas.

"6. For the last several years the Midwest Wool Marketing Cooperative has handled 65 to 75 percent of the wool produced in Kansas and on a strong and dependable volume from year to year. The year 1950 was about the best Kansas year for Midwest on a satisfied consignor basis. Half of the Midwest volume for the last several years was consigned by Kansas growers, numbering on the average 3,500.

"7. Selling wool on a quality and graded basis by the Midwest has resulted in a great improvement in the production and preparation of Kansas wool. In a price comparison basis and in competition in wool shows, Kansas fleeces have a very creditable record during the last several years.

"8. Marketing lambs on a graded basis by county organizations is the best way to get money out of the business as well as being one of the strongest factors to stimulate better production practices. We do not have as many counties using it all the way through, but most of the county organizations use parts of the program.

"9. The Dickinson County Association marketed 90 percent of their lambs as choice. It has been doing this for 15 years and is the most successful."

The Iowa lamb grading and carcass demonstrations are a part of the sheep production and marketing program. Attempts are also made to have western replacement ewes on hand for exhibit and sale to those wanting them. Since the demand for those Western ewes exceeds the supply, names of those who want ewes are placed in a hat. After the ewes have sorted into lots of 10 to 20, names are drawn in order to list the order of preference or sale.

Several States in the Midwest and East encourage the use of Western replacement ewes through demonstrations on improving quality and in an effort to increase sheep numbers. Orders are placed with county agents or sheep committees in the counties, and ewes are purchased to fill the orders through regular purchasing commission firms or direct from production areas. The program in Virginia has progressed to a point where ewe replacements are handled, for the most part, by private interests. This is the goal in most States.

Selling Wool Based on Quality Pays

Wyoming and New Mexico are doing a great deal of educational work on selling wool, based on quality. New Mexico has found that demonstrations on classifying breeding animals for both mutton-producing ability and quality of wool, classifying wool before shearing, and attention to details of shearing and packing have resulted in substantial increases in returns to the producers. Wyoming has emphasized the use of market information in selling greased wool, grading of wool, and core testing by producers in order to determine the value of their grease wool on a clean basis.

Lard Becomes Byproduct of Swine Industry

Lard is becoming more and more a byproduct of the swine industry as vegetable fats are providing increased competition. Most commercial hog-producing States, as well as several other States, are engaged in educational work designed to bring about the marketing of hogs that carry less fat. To be successful these programs must eventually result in a recognition on the part of the trade of the value of different hogs based upon what they will bring in the wholesale meat market.

Ohio has developed a comprehensive program designed to work with producers, market agencies, and packing houses in attempting to get desirable adjustments in the industry. Live grading, demonstrations are now being conducted where hogs are classified and sold on grade with an individual owner being paid for the superior quality of the hog. A large poster has been prepared by Ohio showing the picture of two hogs, a side of each carcass with measurements, and a comparison of the weight of each cut from the two hogs. This poster summarizes Ohio's educational program so that producers, processors, and consumers can see and appraise the difference between carcasses.

Virginia is conducting demonstrations of cut-out tests with a local packer in an effort to establish actual differences in value.

In several sections of the country, packers are providing a market for hogs based on their rail grade with "above the market" premiums for the better hogs. Most hogs, however, are still being sold on a weight basis regardless of their real value to the consumer.

Youth Activities Expanding

Work with youth organizations on livestock-marketing problems has expanded greatly during the past few years. Particular emphasis is being given to (1) the marketing problems of the producer in his marketing operations and (2) the actual functioning of the markets.

In Oklahoma a farm to market program with 4-H boys and girls and FFA members was given special attention in 1950, according to the report. This program emphasized commercial production and marketing of livestock. To enable the county extension personnel to be thoroughly familiar with the commercial market, grades of livestock and marketing procedures, an extension livestock-marketing conference was held in January in Oklahoma City for all county and assistant county agents. This was a 2½-day school. County personnel were given basic information on the functions of terminal markets, how to interpret livestock market reports, market grades of livestock, and price differentials.

Quoting the Oklahoma report:

"The outstanding 4-H and FFA farm-to-market project completed this year was a lamb feeding and marketing project. Fifty-five 4-H and FFA members each purchased one group of 24 head of Western feeder lambs, taking delivery of them on November 1-2, 1949. These lambs were pastured and fed until February 15, 1950, when they were returned to market at Oklahoma City, to be graded and sold. Of the original 1,320 lambs purchased by these 4-H and FFA members, 1,286 were returned

to the market.

"On lamb-marketing day at Oklahoma City, February 15, 1950, a marketing program was arranged for this group of youthful feeders and their parents. Pens of good, medium, and low-grade lambs were arranged for the members and parents to grade. Then a commercial lamb grader marked the lambs and explained the various market grades and why the trade could pay more for a good lamb than a medium lamb, etc. Club members followed their lambs to the scales, saw them weighed, took their scale tickets to their commission firms, and personally received their checks. They were then taken on a tour of the stockyards and the packing plants by a representative of the yards. The packers explained each function of the marketing and processing in detail to these club members and their parents.

"During the year, 4-H Club members followed various sorts of marketing programs. The one, however, which met with the greatest favor was for an entire county to pool their animals (hogs, cattle, or sheep) at a central point in the county and send them to a terminal market with the 4-H Club members accompanying their animals through the entire marketing process. The terminal markets are always glad to make these county 4-H farm-to-market days as educational as possible."

In several counties in Michigan where feeder calves are shipped in for 4-H boys and girls, a procedure has been worked out whereby 4-H members bid on the calves they get. This replaces the procedure of drawing lots to determine who gets what calf. The boys and girls who want calves assemble with their parents at the yards where the calves are held. They have a chance to look the calves over before the calves are auctioned off. Each member bids for the calf he gets, in line with what he thinks it is worth. It is thoroughly understood in advance of the sale what the total costs are and the provisions for adjusting the sales returns to the total cost. A simple device is used which compares total receipts with total expenses. If the calves sell for more than they cost the excess is prorated to each member on the basis of his purchases. If the costs exceed the sales returns the deficit is prorated the same way. Limits are established as to the number any member can purchase as well as a starting bid for all calves.

C. LOOKING AHEAD

During the uncertain years ahead, it is important that careful attention be given to all our livestock marketing educational programs in order to insure that the greatest good will be accomplished for the dollars spent. Opportunities for influencing returns the livestock producer receives for providing a higher quality product for the consumer, must not be overlooked. Much more work needs to be done with producers in helping them to understand market demands, consumer preference, livestock grades, and the availability of markets. This work has greatly expanded during recent years and will no doubt be further expanded in the years to come. In addition to working with producers there is much to be accomplished by working with the trade in aiding it to improve its operations by maintaining or improving quality, increasing efficiency and preventing spoilage and wastes. Improvements in this area of livestock marketing will provide a better market for the producer and better food for the consumer.

Educational Work on Livestock Losses Important

Opportunities for expanding educational programs designed to reduce livestock losses with producers, transportation agencies, marketing organizations, and processing plants, are great. Livestock production and marketing specialists representing 11 Eastern States listed in considerable detail suggested educational activities in their report on the Interregional Livestock Production and Marketing Conference held at Luray, Va., June 18-21, 1951. Copies have been furnished to all extension livestock marketing specialists.

Local Livestock Auctions Important Link in Market

Local livestock auctions have expanded during recent years. Little work has been done to assist these auctions to become more efficient operating units in their physical handling of livestock and methods of selling livestock. Opportunities for improving the operations of this important local market provide a challenge that should not be overlooked.

Working with local auction companies to encourage the selling of livestock on a weight and grade basis will contribute to the effectiveness of the educational program on improving the quality of livestock. In many areas the local auction day is an institution attended by many farmers. They attend whether or not they have anything to sell or intend to buy. For that reason an auction provides a gathering of interested persons where information can be disseminated. Seeing the advantage of quality pricewise cannot escape them.

Locker Plants Expanding Activities

As locker plants expand their activities, their problems of organization and operation grow. These plants are close to farm people and patronized largely by them. In order that their facilities may make the greatest contribution towards the over-all marketing of livestock and at the same time provide a greater service for their patrons much additional research and educational effort are necessary. The extension worker can make a contribution in assisting them to improve their business and service operations as well as slaughtering and processing methods.

Beef Grading Now Mandatory

Currently, the Government grading of all beef and veal slaughtered for sale is an important part of the price-control program. All consumers now have an opportunity to buy beef and veal by grade. A strong educational program, conducted by the livestock marketing specialist and the extension nutritionist, cooperatively, can provide consumers with the necessary information they will need to be able to buy and use beef to the best advantage. Whether livestock grading will be a common practice after the current emergency is passed, will be governed largely by the use consumers wish to make of the beef grades as a guide in their purchase and use of beef.

Many consumers can be effectively reached through local meat retailers, provided these retailers are armed with the necessary information and are equipped to pass it on to the consumers. The meat retailer can become an outstanding local leader.

New Approaches to the Problem of Hog Marketing Needed

In order that feed supplies may not be wasted in the production of excess lard, it is important that educational programs be conducted with producers, marketing agencies, and processors to the end that there will be substantial encouragement to produce the type of hog that consumers want.

The current practice of averaging out, that is letting the high-value hog pay for the low-value hog should be tackled with vigor. Consumers are unwilling to pay high prices for cuts of pork because of the excess fat that many of them carry. Excess fat trimmed at the time of slaughter does not represent the total excess fat carried on many hogs. The cost of pork red meat that reaches the consumer's table is substantially higher than the quoted retail price after allowing for trimming excess fat.

Demonstrations designed to assist a few packers located in the Corn Belt to buy only meat-type hogs, insofar as they are available or can be obtained, should improve the situation and have a reasonable chance for success. A demonstration of this kind should be conducted to determine what influence the consistent purchase of meat-type hogs will have on the financial operation of the plants. It should be designed to assist the plant operator to procure the highest quality hogs available in an effort to show the greatest return to the plant based on its ability to select the type of hog demanded by the consumer.

A demonstration of this kind should establish on a dollar-and-cents basis the advantages of buying meat-type hogs in an industry that is highly competitive. Owing to the competitive nature of the industry, it is reasonable to assume that if major savings can be accomplished by handling only hogs of desirable type and finish, these savings will be passed on to either the producer or the consumer, and in either event improve the competitive position of the swine industry in relation to other types of livestock.

D. SOURCES OF INFORMATION IN U. S. D. A.

For extension educational work on problems of meat animals and wool to be most effective it is important that current sources of information be at hand. In the Department of Agriculture, information is available on various phases of livestock and wool marketing from several bureaus and agencies. In order that new workers may be apprised of fields of work and types of information available from each bureau or agency, a brief summary of the lines of work performed and the types of information available in the field of livestock, meat, and wool marketing in the agencies of the Department of Agriculture follows:

Bureau of Agricultural Economics

All extension workers interested in livestock, meat, and wool marketing should be on the mailing list to receive the Livestock and Meat Situation and The Marketing and Transportation Situation, which are issued monthly.

The Livestock and Meat Situation regularly supplies such data as trends in the production of livestock, some data on feed supplies, trends in feeding, marketing, slaughtering, consumption, and livestock and meat prices. The October Outlook Situation, in which the most important factors are considered and estimates are made of the supply and demand and price outlook for the year ahead, and the February issue, which contains a statistical appendix, are of special interest.

The Marketing and Transportation Situation regularly summarizes trends in farm and retail prices, the farmer's share of the consumer's food and meat dollars, and the marketing margins. This publication also contains special articles on marketing studies, some of them on livestock and meat marketing.

A bibliography on the Marketing of Livestock, Meat, and Meat Products, June 1951, contains selected references, with annotations, to literature in English for the period January 1, 1932, to July 1, 1950, on the marketing of beef cattle, sheep, and hogs for meat and for stock and feeding, on the marketing of meat and meat products, and on frozen-food lockers.

The Bureau of Agricultural Economics is also cooperating with the State experiment stations on a regional basis in three areas. In the Western States, marketing studies center on the place of auctions in marketing Western livestock, and methods, channels, and prices relating to the marketing of feeder cattle. In the North Central States emphasis is being given to studies involving marketing of feeder stock and the analyses of problems and effects of marketing on carcass weight and grade. In the Southern Regional Livestock Marketing project, research projects include studies of trends in livestock production and marketing and related data for the region, meat consumption, retailing, economies of scale in processing, and an analysis of the long-time outlook for the livestock and meat industry in the southern economy.

The Crop and Livestock Reporting Service of the Bureau of Agricultural Economics provides information on market supplies of livestock, poultry, and dairy items. The Service has a regular schedule of releases during the year of over 450 reports dealing with livestock, poultry, and dairy. Statistics cover inventories, production, price, income, utilization, sales, and movements. Statistics concerning inventories include estimates of the number and class of livestock and poultry on farms January 1 and the number of layers and milk cows on hand each month. The number of calves born, lambs saved, and chickens and turkeys raised is estimated annually. Estimates of the pig crop are made twice a year. Reports are issued monthly on the number of chicks hatched by commercial hatcheries, the number of head and live weight of livestock slaughtered, canned poultry, liquid and frozen egg production, and important manufactured dairy products. Weekly reports are made on chicks placed in 11

important broiler-producing areas, warehouse stock of cheese, and butter and cheese production. Special reports on intentions to produce and intentions to market are obtained for hogs, chickens, turkeys, and cattle on feed. Reports on farm production and income are published annually.

Farm Credit Administration - Cooperative Research and Service Division

Work of the Livestock and Wool Section of the FCA includes service to associations of producers and federations of associations engaged in the cooperative marketing of livestock and wool, including processing, storage, financing, credit and other cooperative activities. Assistance is extended producer groups in organizing livestock and wool marketing cooperatives. Upon request economic surveys and analyses of the facts surrounding the production and marketing of livestock and wool in any given area are undertaken to help producer groups decide whether a cooperative is needed.

Special studies of the operating practices, accounting procedures, and business policies of livestock and wool marketing cooperatives are also undertaken from time to time and the results of these studies are made available in bulletins, circulars, or in special reports to the associations involved, and to the public. Assistance in development of present facilities, or appraisal of other processing facilities, is often made for cooperatives and farm organizations interested in meat packing, rendering plants, and wool handling and processing facilities.

Livestock Branch, PMA

The Livestock Branch of the Production and Marketing Administration is responsible for carrying out much of the regulatory work, the service work, and the research work necessary to support these activities as they relate to the livestock industry.

Regulatory functions consist of administering the following:

Packers and Stockyards Act: In general, the act provides that the facilities and services furnished to livestock producers at public markets shall be adequate, that the charges assessed for stockyard and market agency services shall be reasonable, that all consigned livestock shall be sold under open, competitive conditions, that the weighing of such livestock shall be accurate, that full and correct accounting shall be furnished consignors and buyers for whom commission firms act as selling or buying agents, and that the stockyard companies, market agencies, dealers, and packers, shall not engage in unfair, deceptive, or discriminatory practices.

Price supports: Under the Agricultural Act of 1949, as amended, price supports for wool and mohair are mandatory and for hogs permissible. The act also provides a basis for support of cattle, calf, sheep, and lamb prices when they comply with provisions of the act. In the past the only active price-support programs have been for wool, mohair, and hogs.

Insecticide, Fungicide, and Rodenticide Act: This act protects the farmer and general public from ineffective and dangerous insecticides, fungicides, disinfectants, weed killers, and rodenticides. It includes registration prior to marketing of all such products when they comply with the act as well as taking action against those which are adulterated, misbranded, or otherwise in violation of the act.

Service functions are:

Federal Meat Grading Service: Normally conducts a grading service to all applicants on a permissive basis. Under the Defense Production Act and current orders issued by the Office of Price Stabilization, grading of all beef, veal, lamb, and mutton is mandatory.

Standardization and grading: Grades and standards for wool and mohair, live animals, and meat are constantly being studied and reviewed. Revisions or changes in grades or standards are promulgated as needed.

Procurement programs: This service provides for procurement of live animals, meat, and meat products for such purposes as school lunch programs; the stockpiling of wool; price support activities; assisting in hoof-and-mouth disease eradication programs; and procuring supplies for the Army or ECA.

Livestock Market News Service: This reporting service is provided for all species of livestock, wholesale meats, and wool. Market reports covering one or more of these commodities are available from the following offices:

*Atlanta 5, Ga.	50 Seventh Street, N.E.
*Baltimore 23, Md.	5 Claremont Hotel, Union Stockyards
Billings, Mont.	211 Livestock Exchange Building, P.O.Box 532
Boston 10, Mass.	504 Appraisers' Stores Building, 408 Atlantic Avenue
Chicago 9, Ill.	Room 301, 999 Exchange Avenue, Union Stockyards
Cincinnati 25, O.	9 Livestock Exchange Building, 3129 Spring Grove Avenue
Denver 16, Col.	403 Livestock Exchange Building
*Des Moines 9, Ia.	424 Tenth Street
Detroit 9, Mich.	204 Livestock Exchange Building, 6750 Dix Avenue
*Evansville 7, Ind.	Union Stock Yards Building, 103 W. Louisiana Street
Fort Worth 6, Tex.	233 Livestock Exchange Building
Houston 4, Tex.	209 Livestock Exchange Building, 4905 Calhoun Road
Indianapolis 21, Ind.	244 Livestock Exchange Building
Kansas City 15, Mo.	760 Livestock Exchange Building
*Los Angeles 58, Calif.	212 Livestock Exchange Building, Union Stockyards
Louisville 6, Ky.	231 Livestock Exchange Building

*Federal-State Office

Memphis 5, Tenn.	465 West Trigg Avenue
*Montgomery 1, Ala.	State Department of Agriculture and Industries, 515 Dexter Avenue
*Nashville 3, Tenn.	406 Tennessee State Office Building
Nat'l Stock Yards, Ill.	27-31 Livestock Exchange Building, P.O. Box 102
New York 14, N.Y.	Room 824, 641 Washington Street
*Ogden, Utah (including Salt Lake City)	200 Livestock Exchange Building
Oklahoma City 8, Okla.	232 Livestock Exchange Building
Omaha 7, Nebr.	609 Livestock Exchange Building
Peoria 2, Ill.	Peoria Union Stockyards
Philadelphia 6, Pa.	604 A Custom House, 2nd and Chestnut Streets
Portland (North), Ore.	208 Livestock Exchange Building
#Raleigh, N. C.	Division of Markets, Agricultural Building
#Richmond, Va.	Division of Markets, Virginia Department of Agriculture
*San Antonio 6, Tex.	215 Livestock Exchange Building, P.O. Box 800
*San Francisco 11, Cal.	717 Appraisers' Stores Building, 630 Sansome Street
Sioux City 11, Ia.	103 Livestock Exchange Building
So. St. Joseph, Mo.	318 Livestock Exchange Building
*So. St. Paul, Minn.	203 Federal Building
Spokane, Wash.	4 Livestock Exchange Building, P.O. Box 2184
*Stockton, Cal.	P.O. Box 805, Federal State Market New Office Scale Office Building, Union Stockyards
*Thomasville, Ga.	218 Post Office Building
*Tulsa 1, Okla.	Box 420, 208 Livestock Exchange Building, 7300 Sand Springs
Washington, D.C.	PMA, U.S. Department of Agriculture
Wichita 2, Kan.	22 Livestock Exchange Building

Marketing and Facilities Research Branch -PMA

Marketing Facilities

To determine principles and develop standards and criteria with respect to proper lay-out, design, size, location, method of financing, method of operating, and other factors affecting the success of various types of marketing and storage facilities for farm and food products, for use in the development of facility plans for specific markets and for individual firms.

To increase the efficiency of physical handling operations, conserve manpower, and reduce spoilage and waste through the elimination of unnecessary handling of fruits, vegetables, poultry, eggs, meats, and other perishable produce in producing areas, concentration points, and secondary and terminal markets by planning and promoting the construction of essential facilities of the proper size, lay-out, and design for assembling, grading, packing, displaying, storing, shipping, and distributing these products.

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*Federal-State Office
#State Office operating under cooperative agreement with U.S. Department of Agriculture

Materials Handling

To increase the productivity of labor, conserve manpower, and reduce spoilage and waste by determining the comparative efficiency of different types or combinations of types of materials - - handling equipment for performing the physical handling operation in: (1) The stores or warehouses of wholesale fruit and vegetable distributors, (2) commercial apple-packing and storage houses, (3) cotton warehouses, and (4) public refrigerated warehouses; by determining the amounts of equipment needed for the most efficient handling of specific workloads; and by developing improved methods of using materials handling equipment for performing specific operations.

Livestock Auction Markets

A pilot study of Texas livestock auction markets is currently under way in cooperation with the Agricultural and Mechanical College of Texas.

The objectives of this study are:

1. To develop and evaluate the factors pertinent to the establishment or reorganization of livestock auction markets.

2. To increase the operational efficiency of livestock auction markets.

Extension Reports

Attention is also called to recent releases by this Section.

1. Livestock Marketing handbook prepared by Leon Michaelsen, regional livestock and wool-marketing specialist, Logan, Utah. This publication is prepared primarily for use by extension workers located in the Western States. However, information on extension programs, methods, and procedures, and references to source materials, will be of universal interest.

2. Report of interregional livestock production and marketing conference held at Luray, Va., June 18-21, 1951. This report presents in more detail opportunities for educational work on livestock loss prevention, live animal grading, R.M.A. projects and certain youth activities than is included in this summary.

Both of these reports have been distributed recently. Additional copies may be obtained by writing to the Extension Service, Division of Agricultural Economics, U.S. Department of Agriculture, Washington 25, D.C.

III. SUMMARY OF EXTENSION WORK IN DAIRY MARKETING

A. SITUATION:

Significant changes in production and utilization of milk have occurred during the last decade that affect the marketing of dairy products.

Increased Production

Total milk production in the United States during 1950 was 120.6 billion pounds with fewer cows than produced only 109.5 billion pounds in 1940.

The number of milk cows on farms has remained quite stable during the last 3 years (1949-51), although noticeable shifts in numbers between regions have occurred during the last decade. In the North Atlantic States, where milk is produced mainly for fluid consumption, increasing demand for fluid milk has resulted in more milk cows. In the North Central States cow numbers have declined steadily since the mid-1940's, largely as the result of an excellent market for cash gains and relatively higher prices for beef cattle and hogs than for butterfat, the main dairy product marketed from a number of these States. The South Atlantic States now have the largest number of cows on record. This has been mainly the response to increases in demand for fluid milk, and a general shift in the region toward more livestock relative to crops. Although cow numbers in the South Central States are below the early 1940's, they have been increasing slightly since 1948.

In the Western States cow numbers have declined since the mid-1940's. California and Utah have fewer cows than the peak number during World War II; however, both States still have more cows than before the war, whereas all the other Western States are below prewar levels.

Dairy Income Low Relative to Meat Animals

The strong consumer demand which has prevailed since World War II has resulted in price relationships more favorable for production of meat animals than for dairy products, particularly butterfat. These relationships have an important bearing on changes in number of cows and total milk production.

The index numbers of prices received by farmers for certain commodities in June 1950 and June 1951 as compared with 1935-39 yearly averages (1910-14 base), are:

	1935-39	June 1950	June 1951
*All dairy products	119	248	295
Meat animals	117	342	422
Hogs	115	250	289
Beef cattle	119	429	534
*Poultry and eggs	108	168	233
All crops	99	225	263
All farm products	107	247	301

* Seasonally adjusted

Farmers' cash receipts from dairy products in 1950 were slightly below 1949 and 15 percent below record returns in 1948. The leading States in order of returns for dairy products were Wisconsin, New York, Pennsylvania, California, and Minnesota. Leading States in cream sales were Iowa, Minnesota, North Dakota, Kansas, and Nebraska.

Changes in Marketing at the Farm Level

A decided shift from the sale of farm-separated cream to the sale of whole milk occurred during the decade 1940-50. The proportion of whole milk sold in 1950 as compared with 1940, increased 23 percent in the West North Central States, 29 percent in the South Central States, 24 percent in the Western States, and 19 percent for the United States. Except in the West North Central States only 2 States, Montana and Oklahoma, sold less than one-half the milk produced as farm-separated cream in 1950. Although the proportion of milk produced and sold as whole milk in Minnesota and Missouri increased 35 percent and 36 percent, respectively, between 1940 and 1950, cream sales in the West North Central States still accounted for two-thirds of the milk produced and sold as cream in the United States during 1950.

Changes in Utilization

Of the 1950 milk production, 100 billion pounds, or 83 percent, was sold; the rest was utilized on farms. Whole-milk sales accounted for 78 billion pounds; 21 billion pounds was skimmed on farms; and about 1 billion pounds was used for farm butter sold. Milk used in churning farm butter sold off farms has declined to about half the amount used ten years ago. In 1950, two-thirds of all farm butter was sold in the South Atlantic and South Central States. Retail sales by farmers of milk and cream direct to consumers in 1950 was about one-fourth less than in 1940.

Practically all of the increase in milk production from 1940 to 1950 has been utilized as fluid milk and cream. The amount of milk utilized for manufactured dairy products has varied some from year to year but was practically the same in 1950 as in 1940.

Substantial shifts occurred, however, between manufactured products, as shown in the following table:

Manufactured Product	1940	1950	Percentage Change
	(Billions of pounds)		
Other	.15	.57	
Butter	36.80	27.98	-24
Cheese	7.86	11.68	+49
Evaporated and condensed	5.88	6.94	+18
Dry whole	.22	.99	+350
Frozen dairy products (mostly ice cream)	3.73	6.27	+68
Total manufactured	54.55	54.43	- -

A significant change in utilization of the milk solids-not-fat has occurred also. Before World War II roughly 45 to 50 percent of the total supply of milk solids-not-fat was either fed to animals or wasted. During and since World War II, considerably more of the nonfat part of the milk has been consumed by human beings. In 1950, approximately 70 percent was utilized by human beings, and this percentage can be expected to increase in coming years. Diets of many Americans are still lacking in food nutrients which can be supplied by the unused available supply of milk solids-not-fat. Changing patters of consumption, particularly increases for manufactured products other than butter, and higher levels of fluid milk consumption, have contributed to this increasing human use of solids-not-fat portion of the milk supply.

Production of nonfat dried milk has tripled since before the war. Although the export and military demand for nonfat solids declined sharply in 1948 to approximately one-half the amount taken in 1947, production continued upward until 1949, the peak year.

At the same time export and military demands for nonfat dried milk solids were declining, exports of evaporated milk were down about one-half and cheese one-third, respectively, in 1948, as compared with the previous year. By 1949 utilization of milk for evaporated milk and cheese declined and more milk was used for butter and non-fat dried milk solids. Increased production of the latter products resulted in low prices, and record amounts were purchased by the Government for price support in 1949. Since the outbreak of the war in Korea in 1950, the demand for dairy products has increased, particularly for fluid milk and cream.

By the end of 1950, practically all Government holdings of butter and cheese had been sold and holdings of nonfat dried milk solids substantially reduced.

Changes in Marketing

These shifts in utilization during the last 10 years have affected marketing in several ways. The increased amount of milk utilized in fluid form required better quality than for manufacturing milk. The marketing channels for fluid milk and cream differ greatly from those for butter. A reduction in the amount of milk utilized for butter brought problems of decreased volume for some creameries, which affected the efficiency of creamery operation.

Many adjustments resulting from World War II are still in process. During the war, demand for dairy products increased for several reasons. Employment was high, resulting in greater civilian demand, and dairy products were needed for military feeding of troops and people in occupied areas, and for our allies.

To meet this demand it was necessary to curtail the use of butter through rationing and to utilize more of the milk supply in fluid form, and manufactured products, such as evaporated milk, cheese, dried milk, and ice cream. This resulted in a shift, which took place largely in the Midwest, to selling whole milk, instead of farm-separated cream. To provide processing facilities for

manufactured dairy products, a number of lend-lease milk plants were built in the Midwest, especially in Wisconsin and Minnesota. In addition, facilities at many plants were expanded to include milk-drying or cheese-making equipment.

During the war, production of manufactured dairy products increased substantially as did exports. After the war ended, exports continued high for nearly 2 years as sales to foreign countries continued, and foreign feeding programs through UNNRA and military occupation were carried on; then exports began to decline, as production of milk in foreign countries returned to more normal levels and military requirements declined. This drop in exports had its effect largely in the Midwest, resulting in some shift back to cream sales beginning in 1948, and some dairymen shifted to other farm enterprises. Apparently the shift to other farm enterprises began before the war ended. In the West North Central States cow numbers have declined steadily for eight consecutive years and in June 1951 were down one-fourth from the 1943 peak. While this decline took place in the Midwest, cow numbers increased in other regions, as previously discussed.

Changes in Consumption

The increase in population accounted for a larger total domestic use of milk in 1950 than in 1940; however, per capita consumption on a milk fat basis in 1950 was 30.7 pounds as compared with 32.6 pounds in 1940. Per capita production of milk on a milk fat basis in 1950 was the lowest in 27 years. On a total solids-not-fat basis consumption has increased from 41.9 pounds per capita in 1940 to 47.7 pounds in 1950.

A shift in consumption has resulted in less butter consumed and increases in other dairy products. The changes in per capita consumption between 1940 and 1950 were:

Fluid milk and cream	+ 42.0 pounds
Butter	- 6.1 "
All cheese	+ 1.5 "
Condensed milk	+ .3 "
Evaporated milk	+ .6 "
Dry whole milk	+ .16 "
Nonfat dried milk	+ 1.2 "
Ice Cream	+ 4.3 "

Part of the decline in butter consumption has been replaced by margarine. In 1940, per capita consumption of margarine was 2.4 pounds and in 1950 was 6.1 pounds. The removal of Federal taxes on colored margarine during 1950 and the lifting of restrictions in a number of States on the sale of colored margarine by the 1951 legislatures, will probably result in increased use of margarine. Production has increased roughly to three times the amount produced in 1940, and 60 percent was colored in 1950 as compared with 20 percent in 1949.

Other Changes

Other recent trends are (1) increased interest in establishing Federal milk orders in smaller cities; (2) new methods of pricing milk, and (3) increased demand for pasteurized milk, especially in smaller cities.

B. ACTIVITIES, ACCOMPLISHMENTS, AND EXAMPLES OF MARKETING WORK

The extension dairy marketing educational program varies between States, depending on the development of the industry. In dairy areas where extension dairy marketing work has been conducted for many years the program differs greatly from the program in a State where extension dairy marketing is relatively new.

A significant difference is the emphasis given to quality improvement. It is difficult to do much work in marketing until quality is improved in areas of low quality. During the early phase of a quality-improvement program a great deal of educational work is needed. After producers acquire the "know-how," quality work becomes largely service and can be turned over to fieldmen or others in a position to conduct periodic checks, make inspections, and deal with special quality problems. In the Northeast where milk is produced largely for fluid milk markets, emphasis has been given to pricing, seasonality of production, and assistance to distributors and processors. In contrast with work in other parts of the country most of the quality work in this area is now the responsibility of others.

In the Middle West much of the milk is sold for manufacturing or is separated on the farm and only cream is sold. Milksheds have expanded around the cities, and producers have shifted from selling milk for manufacturing to selling milk for fluid use or have shifted from selling cream to selling whole milk. In this area emphasis is given to quality improvement, pricing, seasonality, and special problems.

In the Western States in areas where fluid milk markets have expanded and where local supplies are developing, emphasis is given to quality improvement, educational work with distributors and processors, and problems of transporting milk long distances.

In the Southern States reduction of cotton acreage and improved pastures have been the basis for considerable growth in dairying. It is expected that dairying will increase in the South, but it takes time to develop a farm dairy enterprise and steady growth seems more likely than rapid growth.

Many areas of the South would still be considered deficit milk areas, but in a number of places there is a seasonal surplus and the limit of production for fluid use has been reached at present levels of consumption.

Extension dairy marketing in the Southern and Western States is handled largely on a part-time basis by an extension economist who also has responsibility in other fields, or by the dairy production specialist, with emphasis given to quality improvement, and expanding market facilities and organization.

Using Local Leaders

With increased emphasis on marketing in recent years the workload of marketing specialists has increased, and ways of doing the job more effectively are needed. Developing local leaders is one way of dealing with marketing problems to relieve the specialist of some detail so he can devote more time to broader and more complex problems.

For example, in Ohio the objective in dairy marketing during 1950 was to prepare county agents and home demonstration agents to do more work in marketing on their own initiative. Marketing workshops for county extension personnel were held in two supervisory districts. Demonstrations on consumer information, a description of a county marketing survey project, and a discussion of methods of doing consumer education were presented.

Tours to study retailing were conducted. Managers and department heads explained how foods were purchased at wholesale and distributed at retail outlets. Spokesmen for chain stores analyzed consumer preference for major commodities produced on Ohio farms as revealed in retail sales.

An outline of the materials which the dairy marketing specialist planned to present at winter meetings of dairy farmers was supplied to all county agents. This material was made available for local use by county agents in meetings, radio programs, and press releases and as background for advising individual farmers.

At meetings of dairy farmers, local leaders were used to explain the marketing situation and marketing problems, and to evaluate suggestions for improving market conditions. These leaders, such as good dairymen, fieldmen, plant managers, and others, were used on a panel with the county agent acting as moderator. Frequent use was made also of the group discussion method in connection with the panel. Dairy farmers in attendance at meetings were assigned to small groups of five or six persons. A challenging statement or question was proposed and discussed for a period of time by each small group. Greater participation and interest resulted and more constructive ideas came out of such a meeting than can be presented by lecture method.

Using Publications and Radio

In Pennsylvania the local leaders, mostly fieldmen and directors of milk cooperatives and fieldmen of milk companies, have cooperated closely with the extension dairy marketing program for years. In addition to the extension methods and teaching devices commonly used, such as meetings, conferences, news releases, and magazine articles, two new methods were used with considerable success in 1950. One was the monthly "Farm Business Radio Round-Up." Here 28 duplications were made each month of a radio transcription which was made in the extension radio office. Since May a staff member has been writing the "Farmer's Business Letter" for each issue of Pennsylvania Farmer, a publication that reaches 140,000 farm homes twice a month in Pennsylvania and nearby Eastern States. Several milk-marketing articles were included in Pennsylvania Farm Economics a quarterly publication of the Agricultural Economics Extension Department.

Many of the news stories and radio talks have been prepared for consumers. Also, in a number of city forums, questions concerning milk prices, costs, and methods of marketing have been discussed.

Using an Advisory Committee

Another method of increasing the effectiveness of work by the marketing specialist is the use of an advisory committee. Some States are using that method particularly in planning the program.

In North Dakota an expanded dairy marketing program was developed late in 1949 and a full-time dairy marketing specialist employed. The work of the specialist was guided by the planning and counsel of an advisory committee made up of the director of extension, county agent leader, extension dairy production specialist, extension agent in marketing, head of agricultural economics department, head of the dairy department, and State commissioner of agriculture and labor as ex-officio.

A program developed from the combined thinking of an interested committee can be very helpful in guiding the activities of a marketing specialist. In addition to persons mentioned above, industry representatives also may be in a position to offer advice and counsel.

Evaluating Results

One of the problems in marketing work is an evaluation of results. Sometimes several years elapse before results can be observed or measured. An interesting comment appeared in the Pennsylvania report:

> "This is exceedingly difficult to measure. We know how many meetings we have had in the various counties. We know how many people attended. What we do not know is how fully the farmers used the information that we supplied. When it comes to a question of the organization of cooperatives, we know what has been done but we do not know how successful the organizations will become. We can estimate the coverage achieved through radio and news releases. The unanswered question is: How many use the information?
>
> "Our milk cooperatives have increased in size, membership, and effectiveness. We feel that our assistance has helped them to achieve these favorable results.
>
> "Milk production per cow has increased, efficiency of operations have improved, while more even annual production is being achieved.
>
> "It is probable that our assistance in the preparation of information that was used in milk hearings helped farmers to get a better price."

Major Activities

Extension dairy marketing covers a wide range of work. However, the major activities may be considered under (1) quality improvement, (2) pricing of milk and cream (3) seasonality of production, (4) assistance to marketing organizations, and (5) assistance with special marketing problems; and (6) work in one State was devoted to developing and demonstrating

a small-scale pasteurizing unit.

Quality Improvement

In stressing the importance of quality improvement the report from one State had this statement:

> "Quality improvement work is essential in expanding market outlets or in moving from one price class to a higher use class."

Quality Improvement through Tours

In Nebraska the tour method of conducting quality improvement work was used. A description of some of the dairy problems and the tour method follows:

> Extension work in dairy marketing in Nebraska is still in its infancy; however, some work has been done in quality improvement in cream. The fact that dairying on individual farms lacks specialization, and production within all areas of the State lacks concentration, accounts for many of the problems affecting marketing. Market milk of good quality is in short supply in many of the cities and towns. There is an adequate supply or an oversupply in other cities during the flush months.
>
> The small producers are not as conscious of quality of product and have high production costs per unit. In the fluid milk markets the many small producers cause milksheds to be too large for the volume produced. This causes higher transportation and supervisory costs.
>
> Marketing work in the Omaha milkshed was started early in 1949 when this market became seriously interested in a good grade A milk program. Work was done with producers and producer associations, the city health department, and dairy plants. The educational work done by Extension was largely through marketing tours of grade A milk farms. The marketing specialist with the county agent and often with dairy company fieldmen would visit grade A farms and make a selection for tour stops. On the tours producers had opportunity to see how old facilities had been converted in an inexpensive manner to meet requirements. Labor-saving arrangements and operations were stressed. Discussions were held on tours covering such items as market requirements for grade A milk, uses of milk, market conditions and changes, advantages of grade A production, operation under grade A conditions, various types of conventional and milking parlor arrangements, and other items of interest. As part of a quality milk program it was very helpful for producers to visit milk plants and become acquainted with the various tests for bacteria and sediment, and other tests for quality, observe the operations in a plant, and learn some of the distribution and processing problems. By familiarizing themselves with mothern methods of quality control, producers were able to do a better job of producing high-quality milk for the market.
>
> This type of tour was conducted in a number of other areas in the State. It was interesting to note that not only did the large producers become

grade A producers, but small producers who were really interested in dairying became large producers after qualifying for grade A production. They did this through a better job of breeding, feeding, and management and by increasing the number of cows in the herd. This was an application of economics of which the producer became aware through experience. There are many fixed costs in producing high-quality milk that change very little whether the herd is small or large. On the marketing side of his operation the higher price paid for grade A milk made the producer conscious of his dairy enterprise and resulted in an effort by him to achieve a more efficient and economical operation.

In an effort to evaluate the eduational work done in the milksheds, the health department furnished the extension dairy marketing specialist a list of grade A milk producers. Periodically these lists can be checked to determine the number of new producers that have entered the grade A program.

The interest in grade A milk for towns of various sizes has been increasing during the past year. More towns in Nebraska adopted grade A milk ordinances and have a local supply of Grade A milk. Other towns, some rather small, are considering such action. The specialist assisted in supplying information to county agents as to how the town could proceed in working toward a grade A ordinance and a grade A milk supply. The specialist prepared survey forms and assisted the county agents making short personal surveys of dairymen. This was done to determine the extent that producers were interested in qualifying for and producing grade A milk. Dairy plant managers and health authorities were interested, and possibilities and plans were discussed with them regarding a grade A program. The specialist spoke at meetings where a grade A ordinance was being considered.

Quality Improvement by Public Recognition

In Ohio a plan was inaugurated to encourage quality improvement through publicity given to producers of high quality.

The Ohio Dairy Products Association, trade association of the fluid milk handlers and milk processors, has agreed to support Extension in giving recognition to dairy farmers producing the best quality milk in Ohio.

Recognition for superior performance in quality milk production is a follow-up of the schools conducted by dairy technology, dairy production, and dairy marketing specialists. The plan follows:

County agents, assisted by directors of county dairy service units, request milk buyers to nominate dairy farmers whose milk has been of uniformly high quality throughout the year. The department of dairy technology prepared a score card for rating milk as it is delivered to the receiving station. A committee of dairy farmers and the county agent visit the farmers nominated by milk buyers to check on cleanliness of the barn and milkhouse and the general appearance of the farmstead.

Each year five or six dairy farmers in each county will be recognized as producers of top-quality dairy products. Certificates testifying to their quality records will be provided by the Ohio Dairy Products Association. The purpose is to increase confidence in Ohio dairy products among consumers through publicity given to the awards and to encourage all milk producers to observe the simple rule of "Keep It Clean and Keep It Cold."

Quality Improvement Through Schools

In Montana additional work in dairy marketing was begun in 1949 by the extension dairy production specialist in cooperation with the head of the dairy industry department, and a staff member in the agricultural economics department. The purpose of the program was to increase and improve the fluid milk supply and if possible eliminate the transporting of milk long distances ranging from 100 to 300 miles, which resulted in high costs per unit, and to reduce the wide variation in the price of milk between various communities.

There were almost enough cows in a number of areas, particularly in areas with irrigated farms to produce the milk that was needed locally. Most of the small local dairies needed to make some necessary improvements in order to become licensed and meet sanitary regulations.

Much of the milk and manufactured dairy products in the State was of low quality, and complaints by consumers were common. Milk was pasteurized in the larger towns and cities, but milk used in smaller towns and villages was not pasteurized. Frequently reports were received stating that children did not like the milk that was available.

Some of the factors responsible for a low level of consumption by consumers were (1) sour and off-flavored milk and cream due to improper cooling, (2) off-flavors and high bacteria counts due to unclean utensils, dirty cows, careless milking practices, and mastitis, (3) weedy and feedy flavors due to weedy pastures or hay and improper feeding practices, and (4) old, stale cream held too long on the farm before marketing.

Many producers, and some distributors and manufacturers of dairy products did not know how dairy products were scored and evaluated as to grade and quality in marketing. Only a few distributors and manufacturers applied simple quality tests such as sediment and methylene blue tests to the milk and cream they purchased. A better system of pricing also was needed to furnish an incentive for producing quality products.

In view of this situation it was obvious that quality improvement was the major problem. A series of 1-day market milk schools was planned, and 22 were held in 17 counties during 1950. Emphasis was given to factors affecting the quality of milk and cream and the advantages of high-quality dairy products to both producers and consumers.

The program of the milk school included talks on "High-Quality Milk and Its Importance to Dairymen and Consumers," "Herd Management in the Production of High-Quality Milk," and "Practical Methods of Cleaning Dairy Utensils," and a demonstration of methods for testing quality of milk (sediment, methylene blue, and plate count for bacteria). During the noon recess dairymen had an opportunity to observe bacteria under a microscope. After a discussion on scoring milk for flavor dairymen scored samples of milk.

The schools were well received, and in most areas a request for another one has been made. Since the schools were held a number of milk plant managers have reported an improvement in the quality of the milk and some plants have adopted a system of testing milk for sediment and bacteria. One of the largest plant operators put on a fieldman to work with producers on quality improvement.

Quality Improvement Through Demonstrations

In New Mexico dairy production is becoming one of the State's important sources of income, ranking second to livestock and livestock products in 1949.

Too much milk that was offered for sale was rejected because of high bacterial count, extraneous matter, and off-flavors. Considerably more milk could be marketed as grade A if producers had proper facilities and were taught cleanliness and sanitation in handling their product. An extension dairy marketing project was started in 1948. Most of the work has been done through demonstrations in proper handling of milk and equipment.

Accomplishments so far have been improved quality of both milk and cream; creation of new markets as a result of improved quality; increase in per capita consumption; greater uniformity in dairy sanitation inspections; and the increasing practice of home pasteurization of milk supplies on the farm.

Improving Quality of Manufacturing Milk

In Oklahoma a new dairy marketing project was started in 1950. Considerable work had been done on grade A milk, so this project was developed for manufacturing milk. An educational display was set up at the State fair; all-day dairy clinics were held in 34 counties; tours for producers and processors were held; and farm demonstrations and plant-producer meetings were held. A survey was made to determine farm handling and marketing practices in selected areas. Preliminary findings point up the need for considerable educational work to improve quality. A high proportion of producers surveyed had some reject milk during the year because of sediment or souring; cooling facilities on the farms were far from adequate; warm morning milk was mixed with evening milk; can lids were placed on tightly while milk was cooling; and similar handling practices that contribute to low quality were common. On the basis of the survey, one plant manager employed a fieldman to work on quality improvement. During 1950 this plant had difficulty in getting acceptance of cheese under the price support program because of low quality.

Improvement in Cream Quality

Several States have as part of their program the improvement in quality of cream sold. In Kansas butter production declined from nearly 76 million pounds in 1940 to about 47 million pounds in 1949. Butter manufacturers have suffered from increased manufacturing costs and reduced volume since World War II. Many centralizer-type butter manufacturers have discontinued operation in the State. A survey in the State showed considerable low-quality butter. As a result of the survey and the insistence of the dairy industry a voluntary 4-day cream-grading plan was put into effect which provided a premium price for No. 1 cream less than 4 days old.

In Nebraska price differentials between cream grades have been small. Some commercial companies enjoy the status quo in regard to buying practices and did not favor paying individual producers on the merit of their cream, but would rather pay a lower average price for all cream. The butter industry and the Nebraska Department of Agriculture developed a 4-day cream-buying plan because so many deliveries of cream from producers had been of such age and quality that it was impossible to make first-grade butter. There was some opposition to the plan when it was first started. This was because it was new and many farmers did not understand the need of it, or some of the operational features.

No educational work with cream station operators or farmers had been done before the program was started and the Extension Service had not been asked to aid with preliminary educational work. To help overcome opposition to the program the extension dairy marketing specialist worked with the Butter Institute to plan educational advertising telling of the results of the 4-day plan. In addition, information was sent by the specialist to all county agents explaining the 4-day plan, the need for quality improvement, and the possibilities. As operation under the plan progressed, farmers became accustomed to it and the majority favored it. The opposition came largely from small producers who did not want to market their cream every 4 days, yet wanted to receive first-grade price. The plan steadily improved the quality of cream, and during the summer months almost 90 percent of all cream marketed was first grade. This was a substantial improvement for the summer period.

Because this plan was authorized by the governor and was terminated at the end of the summer, a more permanent program was desired. The dairy specialist and a staff member from the dairy department visited other States to get information on quality improvement programs. A proposed plan was submitted to the butter industry and was well received. It was hoped that phases of it would be incorporated in proposed amendments to the State dairy law at the next session of the legislature.

In North Dakota extension dairy marketing work concentrated on cream-quality improvement on the farm and in the first marketing, and on helping creamery operators and others concerned work out a practical incentive arrangement whereby farmers would be encouraged to market top-quality cream. The principal manufactured

dairy product in the State is butter, and production had declined 1/3 since 1942. About 80 percent of the butter was marketed outside the State.

The quality of butter was checked during 1950. An analysis of 319 samples was made by the dairy department at the agricultural college. Only 11 percent was above 90 score, 73 percent was 90 score, and 16 percent below 90 score.

A new cream-buying plan developed cooperatively by the North Dakota Dairy Industry Association, the American Dairy Association, North Dakota Agricultural College Dairy Staff, State dairy commissioner, and the extension dairy marketing specialist, was put into effect in 1950. The new buying plan provided for a premium of 5 cents a pound for butterfat in No. 1 cream over the price for No. 2 grade cream. The new plan has done much to discourage the marketing of poor-quality cream. It is a voluntary plan and would be more successful if all cream buyers practiced uniform cream grading and rejected cream of poor quality.

Milk Pricing

Much interest has been shown by producers, distributors, and consumers in new methods of milk pricing. Because of the characteristics of milk, its bulk and perishability, different uses, and the seasonality of production in contrast with quite a uniform rate of consumption, its pricing is largely a local matter. It is recognized that with better-informed producers, distributors, and consumers, the result should be a smoother marketing operation with a minimum number of hearings and bargaining conferences. The objectives of the new milk-pricing formulas that have been developed recently are to provide a more prompt adjustment of fluid milk prices and especially more flexibility than that obtained from public hearing procedures in markets operating under Federal orders. Advance notice of price changes was needed in order to encourage an adjustment of supply to demand before any critical stage was reached. Some proponents of formula pricing felt that fluid milk prices should not be tied directly to prices of manufactured dairy products, and that other price-making forces, especially those relating to demand, should be emphasized.

Although formula pricing appears to have many advantages in greater flexibility and a more automatic way of arriving at a price it is still relatively new and is quite a complex procedure.

A formula that performs satisfactorily in one market may not be suited for another. All the new-type formulas used involve procedures which are extremely difficult for producers, distributors, or consumers to understand.

The part that extension workers have taken in the educational preparation for a milk-marketing order or other pricing arrangement was to explain how such a system operates, how the method developed, the need for adaptation for each market, and the automatic adjustment factors based on indexes or other dairy product prices, and how different prices are determined according to the uses made of milk. The policy has been to provide as much information as possible without becoming involved

in the actual determination of price or other issues of a controversial nature. The work has been done largely through meetings, conferences, and publications. Much of the work in milk pricing is closely associated with efforts to adjust the seasonality of production.

In a number of States pricing policies were discussed at meetings to show how different prices are arrived at according to the uses made of milk. The importance of a reasonable pattern of seasonality of production was also discussed.

In some of the Northeastern States extension economists have served on committees to develop price formulas and to appraise existing formulas.

In Wisconsin the highly competitive milk-pricing situation due to the improved demand for milk and dairy products increased the demand for assistance in shifting from the method of paying for milk on a straight fat method to the fat and solids-not-fat method. This method was explained to producers of several associations with almost unanimous adoption of the new method by these associations. The highly competitive situation created a financial security problem among some milk plants in the State, and the State department of agriculture requested assistance in conducting an educational program with directors, secretaries, managers, and owners of milk plants to inform those who were not completely familiar with the problems involved in arriving atthe amount of money to pay for milk. The program invoved working with these companies on such problems as yield of cheese from milk of various tests, accounting methods and safeguards to provide adequate security, and variations in marketing problems so that plants would be in a more favorable position to render a better marketing service to farmers who produce milk.

Seasonality of Production

Many areas of production have the common problem of an excess supply of milk in the spring and early summer, and relatively short supplies in the fall. Consumers want a steady supply of milk. In order to insure themselves of adequate fall and winter supply of milk, distributors have been forced to take on additional producers that contribute to burdensome surpluses during spring and summer. Seasonal variation in production results in part of the excess supply going into manufactured dairy products. If adequate manufacturing facilities are available to handle excess milk the facilities will not be used efficiently during the rest of the year. Without additional producers, during the short-supply season milk must be obtained outside the milkshed and a problem exists of getting the desired quality because such an outlet for outside suppliers offers only a temporary market. To obtain an adequate and uniform milk supply locally requires a price incentive that will encourage producers to level out production. It has to be balanced against the alternative cost of obtaining milk outside the milkshed. The new methods of pricing are designed to bring about a more even supply by reducing prices in the early summer and raising prices in the fall. Considerable preliminary educational work is needed to get producers to make needed adjustments. The effectiveness of an educational program may be observed in Kansas where a pilot demonstration with a

small group of producers was set up by Extension which resulted in reducing seasonal variation in production for 30 percent to 9 percent. In a number of States the Extension program has stressed the need for more uniformity in production and has encouraged adoption of a pricing system that will achieve that end. Pennsylvania farmers have been leveling out their production of milk, especially in the Eastern markets. Each year, the difference between June and November production has been declining. This is believed to be the result of a more realistic pricing system and the continued intensive effort to get dairymen to breed for more fall freshening.

Assistance to Marketing Organizations

Producers have requested assistance from extension workers in a number of States in setting up organizations to facilitate the marketing of dairy products or to assist with problems of existing organizations.

In Iowa, several producer groups have formed organizations, and the one at Keokuk is planning to set up facilities for handling milk.

In Nebraska several producer groups have been organized, usually after the enactment of grade A milk ordinances in towns and cities. As part of the educational program preceding the organization of producer groups the dairy marketing specialist prepared a circular entitled "Milk Producer Associations." This circular presented a description of an association, advantages and disadvantages, objectives, considerations such as need for an association and potential volume of milk, how to organize, responsibilities of directors, management, buying policies, price formulas, and seasonal price incentives.

In Missouri four county-wide dairy councils were organized.

In Kansas there has been much interest among producers in establishing cooperative bargaining associations in the smaller markets. The marketing specialist was called on at numerous times during the year to furnish information to these groups pertaining to need for and procedure in setting up the organization, duties and responsibilities of directors, and other items of interest. The specialist was intrumental also in Kansas in helping form a federation of bargaining cooperatives in the State. This organization has been of great assistance in promoting a State-wide uniform marketing program.

In Pennsylvania economic pressure on farmers has increased their interest in cooperative activity both in established organizations and in new ventures. As part of the Extension program with cooperatives, preliminary meetings were held with groups to acquaint them with cooperative principles, to outline possibilities and limitations, and the steps necessary to form a cooperative organization. During 1950 there were 20 calls to different areas to help farmers establish milk-marketing cooperatives for bargaining or for milk distribution. As a result of the counsel and guidance offered, proposals were abandoned for five milk-marketing associations, and two new milk-bargaining associations were formed. It is important to note that several groups were advised to abandon proposals for organizing new cooperatives. In some States there are too many cooperatives competing with one another at a low level of efficiency resulting from small-scale operations.

Consolidations are needed rather than the organization of new cooperatives.

Other information furnished cooperatives dealt with instructing boards of directors in the use and interpretation of financial statements, business practices, management problems, requirements for income tax exemption, and incorpration procedure, and bookkeepers were instructed how to take trial balances and make bank reconciliations.

In Michigan and Minnesota, considerable emphasis was placed on supplying the same type of information to cooperatives, many of which are dairy, just described for Pennsylvania. Many of the older farmer cooperatives were organized before important amendments were made to the statutes under which cooperatives are now formed and before significant court decisions were handed down by various Federal and State courts. Frequent requests are made by cooperatives for information in this field, particularly the smaller organizations.

In Wisconsin, where considerable work in consolidating small dairy plants had been done, another consolidation was effected in 1950. It was estimated that an annual saving of $50,000 would be made in operating expenses. In another area six cooperatives requested a consolidation study. Recommendations based on the analysis of the situation were to consolidate the operations into three plants with substantial savings in labor, depreciation, taxes, and fuel. It would also permit development of a grade A milk supply which is needed in the area. This would result in a higher price for those producers who shift to grade A. The volume of milk at the existing plants is not sufficient to permit an efficient grade A development.

Development and Demonstration of Small Scale Pasteurizing Unit

An RMA project in New Hampshire resulted in the development of a 30-gallon milk-pasteurizing unit that may have wide use in other States. The situation leading up to its development was the need of small-scale producer-distributors to pasteurize milk for consumers. They have been selling raw milk in daily volume ranging from 25 to 200 quarts. Existing pasteurization equipment was designed for large-scale operation, and small-scale dairymen had to have their milk custom pasteurized or turn their business over to larger-volume milk dealers.

During the last 2 years the extension dairy marketing specialist cooperated with the extension agricultural engineer, a local county agricultural agent, two dairy equipment manufacturers, and the State board of health, in developing a small-unit pasteurizer. After considerable experimentation a satisfactory 30-gallon pasteurization unit has been developed and approved by the State department of health.

It is estimated that the new unit will cost about $1,400 installed, as compared with costs of $2,500 to $3,000 for equipment with similar capacity operated by other methods. The annual saving for a dairyman with 10 cows who pasteurizes about 100 quarts daily is estimated at $1,000 less than the cost of custom pasteurization. With about 800 producer-distributors in the State, this potential saving indicates a valuable return on the investment in this project.

Reports from other States have indicated that one of their problems was the increasing demand in small communities and towns for pasteurized milk and the lack of facilities for pasteurization. If the small-unit pasteurizer solves the problem in New Hampshire, it seems that it would have application in other States and a valuable contribution will have been made to the dairy industry.

General Activities in Dairy Marketing

In most States extension specialists furnish outlook and current market information in a number of ways. In addition to meetings, news items, and radio, information is presented in monthly publications in many States and several times a year in others. Some of the monthly mimeographed publications are:

Dairy Marketing Letter	- Vermont
Dairy Marketing	- Connecticut
The Market Review of Peep and Moo	- Virginia
Milk Market News	- New York

In other States where a publication is not devoted entirely to dairy, current developments in dairy marketing are included in publications dealing with economics and marketing, such as:

Economics and Marketing Information	- Indiana
Illinois Farm Economics	- Illinois
Farm Business Notes	- Minnesota
Arkansas Agricultural Extension Economist	- Arkansas
Iowa Farm Science	- Iowa
Kansas Market Comments	- Kansas
Michigan Farm Economics	- Michigan
Notes on Nebraska Farm Business	- Nebraska
Timely Economic Information for Ohio Farmers	- Ohio
Farm and Ranch Economics Review	- South Dakota
Economic Information for Wisconsin Farmers	- Wisconsin
Market News Letter	- Alabama
Keeping Up on Farm Outlook	- Washington
Agricultural Situation and Outlook	- Oregon
Farm Business Facts	- Oklahoma

Information was furnished farmers to help them keep abreast of changing economic conditions and interpret market situations so that full advantage could be taken of the situation. In Ohio, information was provided during 1950 to help farmers take advantage of the current situation by developing meat production in dairy herds. Suggestions were made for increased production of veal, feeder cattle, and marketing of cull cows.

Much of the work in dairy marketing results from requests for assistance with special problems. In Pennsylvania 310 individuals were assisted with some of their marketing problems.

In Missouri the dairy marketing specialist cooperated with balanced-farming agents in planning grade A milk programs for balanced farms.

In North Dakota 44 creameries were visited during 1950 to consider cream grades and quality, price differential between grades, labor problems, and plant operating costs. Other activities included cooperation in conducting a 1-week butter maker's short course, and preparation of mimeographed material on care and handling of milk and cream and dairy utensils for use by 4-H Club members. The specialist also served as secretary of the American Dairy Association in North Dakota.

In New York additional activities of the extension dairy marketing specialist consisted of cooperation with the Federal Extension office in the preparation of a dairy marketing handbook for use by State extension economists engaged in dairy marketing and for others interested in dairy marketing. Special attention was given in it to sources of information and a procedure for keeping up to date on the current dairy marketing situation. Copies have been distributed to all dairy marketing specialists in the States, and a number of copies have been furnished others on request. In addition, the specialist served as secretary of the Northeastern Dairy Conference, which entailed considerable work in arranging for the Sixteenth annual conference where dairy interests of the northeast meet annually for educational purposes.

C. LOOKING AHEAD

The availability of RMA funds has resulted in the development of much additional work in dairy marketing within the last few years. Considerable emphasis has been given to quality improvement in these new programs. It would be expected that this activity would decline after the preliminary educational work has been done, and the service-type activity would be assumed by the groups affected so that extension marketing activities could be devoted to other problems.

New problems constantly arise from changing economic conditions, technological developments, and changes in utilization of milk. To accomplish Extension's objectives in the field of marketing discussed in the "Introduction" of this report (p. 1), these new problems need analysis and interpretation in how they will affect producers, processors and distributors, and consumers. Providing this type of information is a never-ending process. Examples of recent developments that need analysis and interpretation are: Increased competition from other farm enterprises at a time when farm labor is scarce and standards for the best milk markets are rising; increased production of oil crops resulting in the availability of oil used in margarine; the effect of removal of restrictions on the sale of colored margarine by a number of State legislatures at their last session; the effect of wider distribution of nonfat dried milk solids in consumer packages and a stepped up sales program; the effect of concentrated milk; and other changes that affect the marketing of dairy products. Although important, this type of information is largely outlook and should not constitute the major marketing program.

Pricing

The development of new pricing methods has brought with it the need for educational work with producers, distributors, and consumers if the more complicated methods of arriving at the price for milk are to be understood by all groups affected. A dairyman speaking at a regional meeting early in 1951 said that farmers want to have Federal milk-marketing orders explained to them in language they can understand. Considerable expansion in this field of work can be expected as more markets become interested in the new methods of pricing. Administrative procedures in Federal order markets can be clearly defined, but the economic foundations for establishing prices are both dynamic and complex. Milk is a raw material for the manufacture of many different products, each having its own particular supply, demand, and price structures. Customarily in milk pricing the fluid milk supply, which must be approved by health authorities, is "split off" and handled separately from the rest of the supply.

The dairy industry needs pricing policies that will assist in leveling out production seasonally, be sensitive to consumption conditions, and promote confidence and stability among fluid milk producers, handlers, and consumers.

Seasonality of Production

Closely allied to pricing is the problem of seasonality of production. Although it is in the field of production, it creates marketing difficulties, particularly in fluid markets, and needs to be approached in cooperation with production and farm management specialists. Additional research is needed to determine what price incentive will more nearly balance supply with demand, taking into account producers' problems of costs, investments, feed supplies, and management practices involved in leveling out production. Milk distributors with limited manufacturing facilities are faced with the question whether it will be profitable to add equipment to take care of excess summer supplies if they take on enough patrons to supply their sales needs in the fall and winter. Milk handlers and manufacturers are concerned also with efficient use of facilities and equipment, uniform use of labor on a year-round basis, uniform monthly production of manufactured products, better quality as a result of more immediate movement of manufactured products to the consumer, reducing refrigeration and storage costs, and the avoidance of seasonal surpluses.

Until further research has been completed the problem of seasonality will have to be dealt with on the basis of information and experience currently available. There is still a long way to go in leveling out production, as the variation in supplies in many milk markets between the low month to the peak month is still great.

Improving Plant Efficiency

Technological improvements, shifts in areas of production, and changes in utilization of milk have affected many small dairy plants to the extent that they can no longer operate efficiently. One of the ways of improving this situation is the consolidation of small plants. This problem is common in a number of Midwestern States and is a fertile field for additional work in marketing.

Except in Wisconsin, very little work has been done in plant consolidation. Reported economies in operation of $50,000.00 resulting from the most recent consolidation in Wisconsin, and studies in Minnesota where savings in cost of operation were calculated at $42,000.00 in one county and $55,000.00 in another, indicate that this is a field of work needing attention.

The method of approach will vary between areas and will need to be adapted to the individual problem. A suggested approach to the problem follows:

One of the first steps in bringing about a consolidation would be to acquaint local dairymen, directors of plants, managers, county agricultural agents, and others interested in improving the marketing system with background information on the economics of marketing and the importance of economies of larger scale operations. After they become familiar with this general background information, an analysis should be made of their own local problems. Little if any progress will be made towards consolidation until the local people involved are ready for it. The local dairy plant, particularly a cooperative creamery, is an institution which stands high in the minds of local people. The unfortunate thing is that many of these people do not understand present day problems in the light of technological and economic changes that have occurred since it was organized. Their attitude is still influenced by conditions that prevail at the time it was established. An educational program carried on by extension workers and other interested persons can bring information to local people that should change their attitude toward consolidation. The attitude of local people in many cases is influenced by directors and plant employees who have a job at stake, and will not be interested in action that will eliminate their position in the community and their job. Local business firms often object on the basis that they will lose business which they have enjoyed when farmers brought their milk or cream to the local plant and did some shopping while in town. Truck pick-up of milk and cream on the farm is gradually eliminating producer delivery, so that argument is losing strength. The educational program should be directed toward overcoming these points of misunderstanding.

The local county agricultural agent could be of considerable help in getting the program underway. By diplomatically suggesting ideas to certain people in the community, he could create interest in studying the local problem of marketing dairy products.

The next step could be the forming of a committee to make the study. The committee should be made up of well-informed dairymen. After the formation of a local committee the extension dairy marketing specialist would advise with the committee and help formulate plans for making the study. The committee should actually do as much of the work as possible in making cost comparisons, studying a map or diagram of the supply area, and considering the possible advantages and savings to be expected from a consolidation planned by them. The extension dairy marketing specialist could provide them with data from other consolidations and suggest ways of making the study and suggest problems to consider, but the local people should feel that it is their idea and their plan. As a result of serving on the committee and working on the problem, it would be expected that committee members would understand more fully the problems involved

and possible ways of bringing about improvement. They would be in a position to help "spread the idea" in their community among people who would be affected by the consolidation, and to assume leadership in effecting a consolidation. By the time this stage is reached the marketing specialist will need to provide considerable leadership in bringing the consolidation to a successful conclusion. He can suggest steps to take in the organizational set-up, management, the best use of facilities and equipment, and arrangements for marketing the products. Because of varying conditions in each consolidation these steps will have to be worked out to fit the individual case. Some situations will probably require the closing of selected plants. Other situations will be improved by integrating plants, using one or more for manufactured products, one for fluid milk operations, and such arrangements, but under an overall organization which can direct the operations in such a way that a more efficient job of marketing will result.

Increasing Demand for Pasteurized Milk

Demand for pasteurized milk has increased in many small cities and towns. Many have adopted grade A milk ordinances. As evidence of this recent trend, 54 Indiana cities and towns (82 percent of the urban population of the State) have adopted the standard milk ordinance and code. Fifteen of the 54 took action during 1950. Although statistics were not given, a similar development was reported for Iowa, Kansas, Missouri, and Nebraska, and verylikely is taking place in other States. Minnesota recently passed a law prohibiting the sale of unpasteurized milk in the State except in special cases where certain conditions existed.

In some areas where these changes have occurred producers have asked for information on recommended practices for handling and marketing the quality of milk required, some have asked for assistance in organizing a producers' association, and requests for information on new methods of pricing have resulted. Work of this nature would be expected to increase as more cities and towns adopted more strict regulations.

The small-unit pasteurizer developed in New Hampshire described previously may find a place in some of these areas. Information about it has been made available and some pilot demonstrations in other States may be expected to follow. Requests for additional information from a number of States have been received in New Hampshire by the extension dairy marketing specialist. When more information is available on costs of operation of the small unit pasteurizer based on pilot demonstrations, it will be possible to compare costs of distributing milk pasteurized locally with costs of distributing milk from large plants to small cities and towns.

Trade Barriers

Although the trend of recent court decisions has been toward greater freedom of milk shipments between markets there is still considerable public criticism of the regulated prices and restrictive provisions in a number of milk markets and States, which do not permit economic forces to determine sources of milk supply and which set up rigid market areas beyond which shipments are not accepted. Other criticisms are the fixing of retail milk prices and the prohibition of a price differential between store prices and the home-delivered price in some areas.

The economic effects of marketing restrictions based on sanitation and health requirements, and the effect of prices established by regulating bodies in States need to be analyzed and interpreted.

The development of concentrated milk and its distribution in a number of markets may result in far more concern over trade restrictions in the future. Impartial, unbiased information needs to be presented to interested groups. The economic principle of comparative advantage will need to be explained. A consideration of the public interest will be paramount.

A More Effective Marketing Program

Increasing demands upon the time of marketing personnel make it imperative that a well-planned program be developed so that time spent will be most productive. In developing a program, existing marketing problems need to be set forth so that major emphasis can be given to the most important and work on the minor problems delayed if necessary. Assistance in developing a sound and effective program should be sought from members of the industry, research workers, administrators, regulatory officials, health officials, consumers, and others interested in marketing. An effective method used in some States is an advisory committee. In other States an integrated program has been developed around the department of economics, dairy technology, health department, State department of agriculture, and Extension.

Another method may be the informal type where marketing personnel confer individually with interested persons; however, this does not have the advantage of a mutual exchange of ideas that is possible in an advisory committee discussion.

A method that works satisfactorily in one State may not suit the needs of another and the program must be adapted to the existing conditions.

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IV. SUMMARY OF EXTENSION WORK IN POULTRY AND EGG MARKETING*

A. SITUATION

Chickens and eggs are produced on approximately 80 percent of all the farms in this country and nearly 60 percent of the farms reported the sale of some poultry or poultry products in the 1944 census. Although the production is widespread and only a side-line enterprise on many farms, on other farms it is a highly specialized business, as only 5 percent of all the farms produced about one-half of the total value of poultry products sold in 1944. Of this 5 percent there were 19,000 farms that sold $10,000.00 or more of poultry and poultry products. Thus 1/3 of 1 percent of all the farms in the United States, or 19,000 farms where poultry production was highly specialized, produced more than 1/4 of all the poultry and poultry products sold. The increase in the production of chicken meat in recent years has been phenomenal. This increase has been considerably greater than for livestock products.

Increased Broiler Production

During the year 1949 farm chickens, including those consumed on farms and those sold, excluding broilers, furnished approximately 66 percent, on a weight basis, of the total chicken meat supply. The proportion of chicken meat coming from this source is decreasing from year to year, as commercial broiler production increases. With the exception of the years during World War II, the number of farm chickens produced has actually declined over the past 20 years. The average annual production of farm chickens in 1925-29 was 663 million; there was a gradual decline to 597 million in 1935-39, an increase of 823 million in 1945 and since 1945 there was a gradual decrease to 581 million in 1950.

About 1,889 million pounds, live weight, of commercial broilers were produced in 40 States during 1950. This was 23 percent greater than the previous high a year earlier.

Of the 616 million broilers produced during 1950, the State of Delaware, produced 13 percent, followed by Georgia with 10 percent, Maryland with 9 percent, Arkansas with 8 percent, Virginia with 6 percent, Texas and Indiana with 5 percent each, and North Carolina and California with 4 percent each. The production in these 9 States accounted for 65 percent of the total broiler production. Broiler producing areas in several other States have been expanding rapidly. Broiler production in the State of Maine increased from 1,452,000 birds in 1945 to 16,923,000 in 1950. During this same period Connecticut production increased from 9,900,000 to 14,347,000 birds and Mississippi from 2,369,000 to 17,005,000.

Increased Chicken Meat Consumption

During the same period, however, the number of farm chickens sold increased by 20 percent. In 1925, 55 percent of the farm chickens produced were sold and in 1949 the proportion had increased to 75 percent.

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* Sources of the material used in the preparation of this paper are given on page 55.

Even though the per capita consumption of chicken meat increased 26 percent from 1925 to 1949 on a per capita basis the meat produced from farm chickens in 1949 was about 10 percent less than in 1925; this increase in demand was supplied entirely by the rapidly growing commercial broiler industry. In 1934, the first year in which official statistics became available, commercial broilers were the source of 4 percent of the chicken meat supply as compared with 34 percent in 1949 and 42 percent in 1950.

Improved Competitive Position of Chicken Meat

As indicated earlier, there has been a rapid expansion in the production of chicken meat during the past 25 years. But of more striking interest is the fact that there has been a greater increase in the production of chicken meat than in livestock products, such as red meats and fluid milk, despite lower relative prices for chicken. From 1925-29 to 1945-49 the production of chickens increased about 50 percent, -- this is 10 percent greater than the increase in livestock items. During this same period the price of chickens increased, but on a relative basis the increase was 20 percent less than for livestock products. A 20 percent decrease in the relative price of chickens accompanied a 50 percent increase in production. It is evident that even more chicken would have been produced had relative prices remained the same during this period. The increase in the production of livestock products during this period is also attributed to the application of new technology in production, larger supplies of feed and other factors of production, and to an increase in demand. The greater increase in chicken production, despite lower relative prices, has been primarily due to the greater application of production technology.

Increased Egg Production

Despite the slight decrease in the number of farm chickens produced from 1925-29 to 1945-49 there were 10 percent more laying hens and pullets on farms. This increase in the number of layers, together with 35 percent increase in the rate of lay was sufficient to raise the level of egg production about 50 percent during the 20 years from 1925-29 to 1945-49.

The application of new technology directed at increasing the rate of lay has been adopted more rapidly in the North Atlantic and North Central regions. In the South where the flocks are small, 60 percent of the chickens are in flocks of less than 100 birds. In this region the rate of lay is 15 percent less than the United States average and 40 percent lower than the North Atlantic and Western regions where more than 50 percent of the chickens are in flocks of 400 or more birds. In the North Central region where 70 percent of chickens are in flocks of from 100 to 400 birds the rate of lay is 17 percent below that of the North Atlantic region. For the country as a whole, 27 percent of the Nation's egg production was from farms with less than 100 chickens, 49 percent from flocks with 100 to 400 and 24 percent from flocks with 400 or more birds.

The North Central region produces nearly 50 percent of the Nation's egg production. Eggs produced in those States, particularly the West North Central States are exported into the large consuming centers in Eastern States and into the Southern States that do not produce a sufficient quantity to supply the demand.

Increasing quantities of eggs are also being shipped from the western North Central States to the Western States that have had a rapid increase in population.

Increased Egg Consumption

The increase in the level of egg production of approximately 50 percent from 1925-29 to 1945-49 was accompanied by an increase in the per capita consumption of eggs. The average annual per capita consumption in 1925-29 was 333 eggs and in 1945-49, 383, an increase of 15 percent.

Changes in Demand for Poultry and Eggs

The increase in the demand for chickens and eggs during the 20-year period 1925-29 to 1945-49 was the result of an increase in total population, an increase in the real incomes of consumers, and in the distribution of these incomes, changes in food preferences, and in the supply of substitute foods available. At the same time disposable personal income (the amount available to individuals for spending after income taxes) more than doubled. On a per capita basis, the total disposable income averaged 86 percent higher, while the retail price of foods averaged about 33 percent higher in 1946-49 than in 1925-29. On this basis consumers' purchasing power increased nearly 40 percent during this period.

There was an increase in the consumption of the higher priced food products during this period. The per capita consumption of livestock products, fruits and vegetables, increased, while the per capita consumption of the less expensive foods, including potatoes and grain products, decreased.

The change in preference, however, was much greater for chicken meat than for the red meats. Taking the 1925-29 average consumption per capita as 100 percent, the average per capita consumption of red meat increased to 111 in 1947-49 and chicken meat to 120 percent. The lower relative prices for chickens accompanied the higher relative consumption.

The change in the character of chicken meat and the more even seasonal supply throughout the year were important factors influencing increased consumption. The changing character of chicken meat resulted largely from the great expansion in broiler production. Although seasonality in the marketing of farm chickens has not changed much during the past 25 years, the increase in broiler production has helped even out the seasonal supply of chicken meat. The marketing of broilers has been rather evenly distributed throughout the year.

Changes in Supply of Poultry and Eggs

Two factors have contributed to increasing the supply of chickens: improved production technology and larger supplies of feed and other resources. The cost per unit of output, in terms of feed, labor and other items used in producing chickens, was reduced sharply during the past 25 years. If it is possible to say that any one innovation has been responsible for the rapid expansion of chicken meat production, it would be the feeding of cod liver oil to control rickets, which has made the economical production of young chickens possible. Year-round production has permitted greater efficiency in the use of the factors of production, such as labor and equipment. Also, it has permitted greater efficiency in processing and distribution.

Other innovations in feeding, breeding, and sanitation have also helped to reduce costs. One of the more recent is the discovery of A.P.F. — animal protein factor supplements. The first of these supplements to

be discovered was the compound vitamin B_{12}, the second is aureomycin, and the third is a derivative of arsonic acid. Vegetable proteins, when fortified with these compounds, can be used to replace the more expensive animal protein supplements, such as fish meal, dried milk and meat scraps. In July 1950, the cost of the required amount of B_{12} to supplement 100 pounds of an all vegetable ration was about 10 cents. Experiments indicate that the use of these three compounds--B_{12}, aureomycin, and the arsonic acid derivative, will reduce the cost of producing young chickens and broilers from to 5 to 10 percent.

Despite the progress that has been made in disease control, the estimated annual death loss in chickens has remained about 19 percent for the nation over the past several years. If it were not for the better sanitation and health measures now being used, it is likely the losses would be greater than in former years. The great increase in the size of flocks has no doubt made it more difficult to control death losses.

Decline in Live Poultry Marketing

Receipts of live poultry have not greatly increased on most of the larger city markets, as an increasing proportion of chickens are being dressed in producing areas.

Most of the live poultry now arriving on city markets is transported by truck from nearby producing areas. Rail shipments of live poultry to the New York City live poultry market dropped off rapidly from 1940 to 1949. Receipts totaling 39,600,000 pounds dropped to 189,000 during this 10-year period. According to a report from the New York City live poultry market, no rail shipments of live poultry had been received on that market during the first six months of 1950. The origin of the majority of receipts are from nearby producing areas. Receipts from four States--Connecticut, New York, New Jersey, and Delaware--accounted for 68 percent of the live poultry received on the New York City market in 1948.

Arkansas is the one example of a large commercial broiler producing area that still depends upon the live market as its major outlet. Broilers trucked from this area are fed during transit in order to reduce weight and quality losses. A study made in this area in 1934-39 showed that only 1.7 percent of the broilers were sold to local dressing plants. However, in recent years several local dressing plants have been established, and in 1949 more than 20 percent of the production was processed locally. Only limited data are available for the other producing areas that would give the proportion of broilers delivered to live markets. However, the live poultry market provided an outlet for practically all of the broilers produced in the State of Delaware prior to 1938. During 1937 an estimated 16,000,000 broilers were produced and sold in the live market. Receipts of poultry on the New York City market in 1947, 10 years later, show that approximately 32 percent of the poultry received originated in Delaware and Maryland. Approximately 75 percent of these receipts were delivered dressed, and 25 percent to the live market.

Poultry Processing Plants Move to Producing Areas

The establishment of processing plants in production areas apparently results from lower processing and distribution costs. Live birds lose both weight and quality as they are hauled and the loss increases rapidly with distance. For this reason, the live broilers are closely tied to local markets. The one exception is Arkansas and there an increasing

proportion of the birds are being processed locally.

Processing locally concentrates the product by removing all or part of the inedible portions of the birds. The shrinkage in broilers from live weight to dressed (New York dressed) weight is from 11 to 12 percent.

Dressed poultry has only the blood and feathers removed. The shrinkage in broilers from live weight to ready-to-cook (eviscerated) weight is from 34 to 38 percent. Ready-to-cook poultry has had head, blood, feathers, feet, crop, oil glands, esophagus, trachea, entrails, lungs and reproductive organs removed....abdominal fat, if any, and giblets are included in ready-to-cook weight. On the basis of live weight equivalents, ready-to-cook poultry can be transported cheaper than dressed. The amount of transportation-cost-advantage also depends upon the form in which the poultry is packaged and the distance it is to be transported. Packaging that permits the use of mechanical refrigeration instead of ice may also reduce transportation costs. This, however, depends to a great extent upon the distance to market.

Improved Grades and Standards for Dressed Poultry

As poultry dressing and packaging operations have moved to the producing areas, the interstate movement of dressed poultry increased greatly. This brought about a need for more uniform terminology and minimum standards for quality wholesomeness.

In the past, for example, many different terms have been used in consumer sales to describe poultry which was presumed to be ready for cooking without further processing in the kitchen, such as eviscerated, cut-up, drawn and ready-for-the-pan. In consultation with industry, the United States Department of Agriculture, in its revised and consolidated inspection and grading program, that became effective January 1, 1950, developed the term "ready-to-cook" to identify what it formerly recognized as fully-drawn or eviscerated poultry. It was considered that the term "ready-to-cook" would be more easily understood and have more sales value. This term now seems to be receiving wide acceptance. Another term now being used is "dressed" instead of "New York dressed" or "market dressed." Broiling and frying chickens, formerly two classes, are now combined into one class--"broilers or fryers." Stewing chickens were formerly classed as fowl, and may now be described by any of the following terms: "hens," "stewing chickens," or "fowl."

The United States Department of Agriculture voluntary poultry inspection and grading regulations that became effective January 1950, provide for grading service, inspection service, and a combination of the two services. The regulations establish minimum facility and sanitary requirements for slaughtering and dressing poultry as a prerequisite to official grading and inspection. Prior to January 1, 1950, these requirements applied only to the eviscerating process as a part of the inspection program. Regulations apply only to those members of the industry who request the inspection and grading services. Experience in operation of the program during 1950 indicates the program is having favorable acceptance from the industry as an increasing proportion of the poultry meat is being inspected and graded under Federal supervision.

Additional Services Increase Marketing Costs

The additional services, such as evisceration, inspection, grading, packaging, and freezing, lead to more complete consumer acceptability. Without a doubt these services have contributed greatly to increasing the demand for chicken meat, and each are essential in modern processing and distribution methods.

It is generally considered that the cost of providing these services is primarily responsible for the additional relative increase in the cost of marketing chickens. During the past 25 years the marketing charges for chickens have increased at a greater rate than for eggs, meat and dairy products and for the average of all farm products combined. If we take the index number for the base period 1925-29 as 100, the marketing charges for chickens has risen to 153 for the years 1947-49, in comparison to 133 for eggs, 137 for meat products, 134 for milk products, and 128 for the average of all farm products.

Expanding broiler production and the transfer of processing operations from consuming centers to producing areas has created many new marketing problems. It is natural that the problems will differ to some degree between areas, but many of the problems are similar and apply to more than one area.

Increased Production and Consumption of Turkeys

The same changes effecting conditions of supply and demand for chicken meat have been taking place in the case of turkey meat. In 1930, 216 million pounds (dressed weight) were produced. By 1949 production had increased to 707 million and in 1950 to 755 million pounds. During the same period for 1930 to 1950 per capita consumption of turkey meat increased from 1.8 pounds in 1930 to 4.5 pounds in 1946. It dropped to 4.2 pounds in 1949 and in 1950 increased to 5 pounds per capita. The increase in the per capita consumption of turkey meat was considerably greater than that of chicken meat. In 1930 the per capita consumption of chicken meat was 21.5 pounds and by 1943 it had increased to 30.5 pounds and in 1950 it had decreased to 26.9 pounds.

B. ACTIVITIES, ACCOMPLISHMENTS, AND EXAMPLES OF MARKETING WORK

Following are some representative examples of poultry and egg marketing activities that are being carried on in different States. These examples serve to point up some of the more important educational activities in which the States are engaged.

Quality Improvement

The examples selected, illustrate several approaches to the problem of quality improvement. Note that some programs deal with producers, handlers, and consumers. Others place more emphasis on quality improvement at certain stages of the marketing process.

The Quality Program in Texas

In Texas the extension marketing specialists have worked closely with other specialists and county extension agents in developing and carrying out a poultry and egg marketing program. The program has included work

with producers, processors, handlers, and consumers.

Much of the work has consisted in establishing markets for producers that recognize the grades of poultry and eggs and pay producers according to quality delivered. In planning and conducting the marketing educational program with producers, an effort is made to bring producers, processors, and handlers together in the same county meetings. This procedure has aided greatly in acquainting producers, processors, and handlers with each other's problems and in arriving at solutions to these marketing problems. Representatives of consumer groups are also invited and urged to attend county meetings.

Much time was devoted to working with processors and handlers. Meetings were held and demonstrations conducted on processing, packaging, and grading poultry and eggs. Representatives of processing plants, wholesalers, retailers, cooperatives, and freezer locker associations who attended the meetings usually participated in developing plans for a constructive program in local communities, county, district and State. Most of the work was organized and carried on through county extension offices; only in a few instances was direct assistance given.

A set of colored slides was prepared for use in carrying out this phase of the program. Scripts were also prepared for use by county agents when showing the colored slides or film strips.

Much time was also devoted to acquainting consumers with factors effecting the quality of eggs, chickens, and turkeys and grade terminology which identifies the quality contained in the products. Most emphasis was placed on this phase of the work with the consumers in the organized market areas for graded eggs. Considerable work was also done in the larger cities on year-round merchandising of turkey and disjointed broiler chickens. In addition, to press and radio releases, demonstrations were presented before women's groups, civic clubs, and other groups. 4-HClub members presented many of the demonstrations. Educational displays were also used at shows and fairs.

The Quality Program In Wisconsin

In Wisconsin, egg marketing work has been concentrated in two market areas, Eau Claire-Chippewa Falls and Milwaukee. In the Eau Claire-Chippewa Falls area, the educational program is carried on in three phases; (1) work with poultry producers; (2) work with wholesalers and retailers of eggs; and (3) work with consumers. The work with producers on maintaining quality emphasized the importance of gathering eggs regularly, cooling them quickly, and marketing them often. Work with wholesalers and retailers consisted of demonstrating the techniques of candling, grading, packaging, and displaying eggs. The importance of keeping eggs at low temperatures throughout the market channel was emphasized. Biweekly newsletters were sent to 120 retail stores in the area. These letters stressed simple methods of maintaining top quality eggs in their stores and improved merchandising methods. The program with consumers stressed the use and preparation of eggs for human consumption. Information was disseminated by radio, newspapers, letters, handouts, egg carton stuffers, and demonstrations. Approximately 550 housewives attended a series of 12 demonstrations and over 8,000 egg recipes were distributed in egg cartons. Over 600 egg producers, handlers, and consumers attended one general program for the area on egg marketing. Monthly meetings were held with a local

advisory committee which provided counsel in planning and carrying out the program.

The three phases of this program carried on simultaneously with producers, handlers, and consumers had a pronounced influence in bringing about an appreciation of the nutritional value of eggs, and the necessity of maintaining quality in order to encourage consumption. As a result of the program about 80 percent of the eggs in the market area are being purchased on a graded basis.

As of May 1, 1951, 12 of the large grocery stores, which sell approximately 25 percent of the eggs in the two cities, have changed their practice of displaying eggs in open shelves, to displaying them in refrigerated show cases. Several stores have developed their own cartons and are promoting the sale of top quality eggs in their weekly advertisements.

In an effort to measure the effectiveness of the educational program, two surveys are now being made. A survey among retailers is designed to determine changes in consumer demand for quality eggs and to what extent the program had been helpful to retailers in providing better quality eggs. The consumer survey is designed to determine how much the program has helped consumers to understand egg quality and how to make the best use of eggs in the menu.

Work With Wholesalers in New York

In New York State personal visits were made to the plants of 25 wholesale egg buyers who had recently cooperated in a research study. The egg buyers indicated an interest in having educational materials available on improving egg quality and marketing for distribution to producers. As a result, a series of seven marketing pointers were prepared for inserting in envelopes along with egg checks. Eight hundred copies of each insert were distributed at intervals with checks over a period of time. The titles of the inserts were: "Keep Eggs Clean," "Keep Layers Inside," "Three Times A Day," "Clean Eggs," "Keep Eggs Cool," "Handle With Care," and "Sort for Size."

A chart was also prepared enumerating the seven marketing pointers for placing in egg rooms. Approximately 5,000 copies of this chart, "How to Get More Money for Your Eggs." In cooperation with the departments of agricultural engineering and poultry husbandry, a publication entitled "Build Your Own Egg Room" was prepared, and 13,000 copies were distributed. Wholesale egg buyers reported that the publications provided them for distribution have been helpful in bringing to the attention of producers the need for improved marketing practices. It is anticipated that several egg rooms will be constructed by poultrymen as a result of the program.

The work with wholesale egg buyers led to plans for the formation of an association of New York State Egg Buyers. The primary purpose of this organization is to improve the quality of eggs. The buyers are particularly interested in moving toward the purchasing of all eggs on a quality basis.

Egg Institutes in Minnesota

In Minnesota, where approximately 70 percent of the eggs produced are shipped to consuming centers in other States. Egg institutes have become an important activity in the program to improve egg marketing in that State.

The production and marketing specialists work closely together in planning and carrying out the program for the institute. They work closely with the county agricultural agents and home demonstration agents and a local committee in each county where an egg institute is to be held. The local committees consist of representative producers, egg buyers, feed dealers, hatcherymen, vocational agricultural instructors, etc. Committee meetings for planning the egg institute are held at least six weeks in advance of the date on which the institute is to be held. At this meeting the committee decides on a general outline for the conduct of the institute, the responsibilities of the different committees and rules for conducting the egg show. A three-way program is usually developed.

1. A meeting from 10:00 a.m. to 3:00 p.m. During 1950-51, the subjects discussed by the production specialists were Trends in Poultry Raising and Producing Quality Eggs, and those discussed by the marketing specialists were What Happens to an Egg (illustrated by slides) and Marketing Quality Eggs.

2. An egg show, consisting of one-dozen lots of eggs, entered by producers, in six classes. Judging was usually done by the specialists assisted by the Federal-State egg graders. Prizes were supplied by the local committee.

3. Exhibits -

   a. A set of 8 panels, prepared by the production and marketing specialists, to present visually some of the production and marketing problems. These panels covered seasonality of production, labor saving practices, and cooling and packing practices.

   b. A cooling display, prepared by the specialists, showed cooling time in various types of containers.

   c. Display of eggs of different grades by local buyers.

   d. A community nest and a fan cooled egg cooler, built locally and supplied by the local committee.

These egg institutes are serving as demonstrations of what can be done when trade, production, and educational forces get-together. The communities carry the ball in planning and conducting the egg institutes.

Establishing New Poultry Dressing Plants

In Arkansas, a number of counties outside the major broiler producing areas are fast becoming important producers of broilers. These new broiler producing areas have many marketing problems, until such time as the volume becomes large enough to interest larger buyers. It has been felt that an educational program directed at the problem of the

new areas would accomplish more than one in the established broiler producing areas. Producers and handlers in these areas have been supplied with information on possible market outlets, outlook information, and other aids. Surveys have been made of several new broiler producing areas as to the feasibility of establishing processing plants to aid in marketing their broilers. Three towns have been advised against establishing processing plants, until the volume has increased considerably over what is now available. Two towns apparently have need for small processing plants, if they can be set up on a sound basis. Several large processors have been interested in a proposal by the Little Rock Chamber of Commerce for establishing a poultry processing plant in Little Rock. In proposing the establishment of this processing plant, the Extension Service was asked to supply broiler and turkey production figures within a 75 mile radius of Little Rock. This information was submitted and showed sufficient volume to justify a fairly large plant. Indications are that such a plant will be established in the near future.

Assisting Established Poultry Dressing Plants

In South Carolina special emphasis has been given to assisting poultry processors with their processing and marketing problems. There are approximately 80 plants processing poultry. Of this total number, 33 plants are processing from 500 to 12,000 birds per week. Of the remaining 47 plants that process less than 500 birds weekly, over half are frozen food locker plants where poultry processing is done on a seasonal basis. The largest amount of the processing in these plants is done in late spring and early summer months when the broilers, chuffy cockerels, are taken from the flocks that are being produced for laying purposes. In addition, there are 19 plants that process turkeys only. These plants are operated by persons who produce all or part of the live turkeys that are dressed.

Visits by the marketing specialist were made to nearly all of the poultry plants at which time processing and marketing problems were discussed with the processors. Practically all of the processors visited were interested in improving their processing operations and in undertaking to improve the marketing of poultry meat. The problems that the processors were immediately interested in having assistance with were:

a. Repairing old and constructing new processing plants.
b. Repairing old and purchasing new equipment.
c. Re-arranging equipment for more efficient operation.
d. Training personnel so they may become more skilled in the job they perform, thereby contributing to more efficient operation of the plant.

Since 1949 when this work was first undertaken, 11 new processing plants have been constructed and many of the plants that have been in operation have improved their facilities. In addition to increasing the efficiency in plant operation, there has been a marked improvement in the quality of poultry products being merchandised.

Developing Market Outlets

In Pennsylvania, surveys have been made of marketing conditions of poultry and eggs in several counties. These county surveys were undertaken for the purpose of analyzing the problems in order to determine the proper approach to use in improving the marketing of poultry and eggs. Producers were interviewed to obtain information on marketing practices, prices, available market outlets, incentives for producing quality eggs and poultry, quality and size of eggs sold and cash costs of marketing under difficult methods.

In one county, (Crawford), for example, the survey showed that in the southern and western parts, there was not an adequate market outlet for good quality eggs during periods of peak production. It also showed that prices on local markets during seasons of peak production were below those on other markets in an adjoining county where an adequate outlet was available.

With these facts in mind a truck route was started in November 1949, to haul eggs and poultry to the Butler Cooperative Egg Auction, Butler, Pa. After finding a suitable trucker, the route has been operating successfully. During the first 11 months, the truck route was in operation, 2,777 cases of eggs, an average of 49.5 cases weekly, and 326 coops of chickens were hauled to the Butler Cooperative Egg Auction.

Improving Market Reports

In New York State, the extension marketing specialist worked with a committee studying the adequacy of the Buffalo Report. A report was prepared enumerating suggestions for the improvement of the present market report for live poultry and eggs. The committee report was presented at a meeting of the New York State Poultry Council. The council then presented the report to members of the New York State Department of Markets with suggestions for appropriate action.

C. LOOKING AHEAD

A study by the Bureau of Agricultural Economics, entitled "Competitive Position of Chicken and Egg Production in the United States," published August 1950, had the following to say about the future expansion in poultry and egg production in this country.

> "Looking ahead to the next decade, the trends now under way suggest that technological improvements in chicken and egg production will continue although probably it will not be so rapid as in the last decade. Together with larger supplies of feed, this may cause the supply of chickens and eggs to continue to expand. Demand for these products will increase with population growth, provided general economic conditions remain favorable. An appraisal of factors that may affect the supply and demand for poultry products in the next decade indicates that total production and consumption of chicken meat may increase about 10 percent or by about the same figure as population growth. Domestic consumption of eggs also may increase about 10 percent, from 1945-49 to 1960, although the total market outlet may expand only about 6 percent as exports become a smaller

The Department of Agriculture in its study indicated that if consumption of chicken meat is to be maintained at 25 pounds per capita in 1960, there will need to be a 50 percent increase in broiler production over the 1945-49 average. All of this expansion in chicken meat production will come from commercial broilers, as the production of meat from farm chickens will decrease as the number of chickens on farms continues to decline.

It now appears that these estimates on the future expansion in production of chicken meat were very conservative. In 1950, 1,889 million pounds, live weight, of commercial broilers were produced in the United States. This was 13 percent greater than the annual production estimated by the Bureau of Agricultural Economics for 1960. There seems little doubt but what the rapidly changing economic conditions were largely responsible for this unexpected increase in production.

Throughout the years the Extension Service has assisted poultry processing plants, particularly farm dressing plants, in improving the quality of poultry meat and in improving operating efficiency. With the vast increase in the amount of poultry being processed in producing areas there would seem to be a great need and opportunity for placing increased emphasis on increasing efficiency in the use of resources in individual plants. In some areas there may also be an opportunity to work with two or more plants on problems of consolidation that will bring about needed integration in the marketing and distribution of poultry meat. In several areas where broiler production is expanding, State extension services have conducted surveys and provided information in regard to the location of processing plants. As the poultry meat industry continues to expand there will be a great opportunity to give further guidance on the location of new processing plants.

Although much educational work has been done on improving the quality of dressed poultry, the need for additional educational work has increased as larger amounts of dressed poultry move in interstate commerce. During the past two years, States have been giving increased attention to the enactment of State poultry inspection and grading regulations. Much educational work accompanies such legislation both before and after the inspection and grading regulations are enacted into law.

Much additional educational work is needed with producers, assemblers, and distributors of eggs on maintaining quality during marketing. Further improvement in the quality of eggs marketed will improve the competitive position of eggs with consumers in relation to other food products. Quality programs, particularly in the Midwest and Southern States, to improve the eggs marketed will raise the average prices received and improve the competitive position of poultry in relation to the production of crops and livestock products.

Educational programs directed at improving marketing facilities and increasing the efficiency of collecting, assembling, grading, packing, storing, and distributing eggs offer great promise. In many areas the consolidation of assembly stations is essential if egg grading and packing operations are to be performed efficiently, and if the desired integration in the marketing of eggs is to come about. In many localities refrigerated storage facilities are essential if quality is to be maintained.

Problems relating to the pricing of both live and dressed chickens, turkeys, and eggs should not be overlooked in planning and conducting educational programs in poultry and egg marketing.

The forces of technology as they are applied to assembling, processing, and distributing poultry and eggs are by no means spent. Much research is underway at the present time; the results of which should be particularly helpful in planning and conducting educational programs in poultry and egg marketing.

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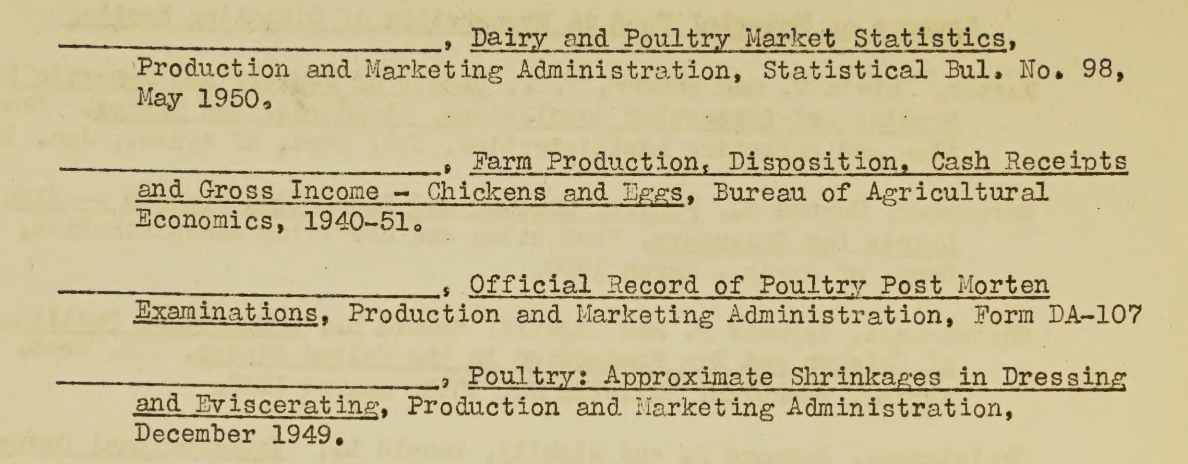
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